



Product Change Notification: SYST-02NLGL403

Date:

08-Jun-2026

Product Category:

Clock And Timing - Oscillators

Notification Subject:

Data Sheet - DSC61xxB - Ultra-Small, Ultra-Low Power MEMS Oscillator

Affected CPNs:

[SYST-02NLGL403_Affected_CPN_06082026.pdf](#)

[SYST-02NLGL403_Affected_CPN_06082026.csv](#)

Notification Text:

SYST-02NLGL403
Microchip has released a new Datasheet for the DSC61xxB - Ultra-Small, Ultra-Low Power MEMS Oscillator of devices. If you are using one of these devices please read the document located at DSC61xxB - Ultra-Small, Ultra-Low Power MEMS Oscillator. Notification Status: Final Description of Change: • Updated Features and Applications. • Added Low Drive strength values to the Electrical Characteristics table. • Updated both Section 2.2 “Pins 2 through 4” and Section 2.3 “Output Buffer Options”. • Updated the Package Marking Information and included a note regarding top-line frequency marking.

- Added Low Drive option to the Product Identification System section.

Impacts to Data Sheet: See above details.

Reason for Change: To Improve Productivity

Change Implementation Status: Complete

Date Document Changes Effective: 08 Jun 2026

NOTE: Please be advised that this is a change to the document only the product has not been changed.

Markings to Distinguish Revised from Unrevised Devices: N/A

Attachments:

DSC61xxB - Ultra-Small, Ultra-Low Power MEMS Oscillator

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

Terms and Conditions:

If you wish to receive Microchip PCNs via email please register for our PCN email service at our [PCN home page](#) select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the [PCN FAQ](#) section.

If you wish to change your PCN profile, including opt out, please go to the [PCN home page](#) select login and sign into your myMicrochip account. Select a profile option from

Affected Catalog Part Numbers (CPN)

DSC6111JI2B-032K000
DSC6101JI3B-001.2000
DSC6111JI3B-012.2880
DSC6111JI2B-050.0000
DSC6111JI1B-032K768
DSC6111JI3B-026.0000
DSC6101JI3B-025.0000
DSC6101JI3B-008.0000
DSC6101JI2B-004.0000
DSC6111JI1B-016.3840
DSC6111JI3B-048.0000
DSC6111CI1B-016.0000
DSC6101CI2B-050.0000
DSC6101CI2B-025.0000
DSC6101CI2B-070.0000
DSC6101CI2B-020.0000
DSC6101CI2B-024.0000
DSC6101CI2B-048.0000
DSC6101CI3B-025.1658
DSC6102CI2B-100.0000
DSC6101CI2B-100.0000
DSC6101CI1B-025.0000
DSC6111CI1B-001.8432
DSC6111CI1B-008.0000
DSC6111CI1B-010.0000
DSC6111CI1B-012.0000
DSC6111CI1B-014.7456
DSC6111CI1B-019.2000
DSC6111CI1B-020.0000

DSC6111CI1B-024.0000
DSC6111CI1B-024.5760
DSC6111HI1B-027.0000
DSC6111HI1B-025.0000
DSC6111HI1B-024.5760
DSC6111HI1B-024.0000
DSC6111HI1B-020.0000
DSC6111HI1B-019.2000
DSC6111HI1B-016.0000
DSC6111HI1B-012.2880
DSC6111HI1B-012.0000
DSC6111HI1B-010.0000
DSC6111HI1B-008.0000
DSC6111HI1B-001.8432
DSC6111HI2B-006.0000
DSC6112HI1B-050.0000
DSC6112HI2B-020.4800
DSC6151HI2B-016.0000
DSC6101HI1B-004.9152
DSC6101HI1B-025.0000
DSC6101HI1B-027.0000
DSC6111HI2B-024.0000
DSC6101HI2B-036.0000
DSC6101HI1B-027.1200
DSC6101HI1B-070.0000
DSC6101JE3B-024.0000
DSC6101JE1B-024.0000
DSC6101JE1B-050.0000
DSC6111JE2B-100.0000
DSC6101JL3B-027.0000
DSC6102JL1B-088.0000
DSC6102JL1B-033.0000

DSC6112JE1B-100.0000

DSC6121JE1B-01HD

DSC6121JE1B-01HE

DSC6121JE1B-01HG

DSC6101JE1B-030.0000

DSC6101JE1B-033.0000

DSC6101JE1B-022.4000

DSC6101JE3B-032K768

DSC6101HL3B-025.0000T

DSC6101HL3B-027.0000T

DSC6102HL2B-072.5000T

DSC6101HL2B-072.5000T

DSC6101HL2B-072.0000T

DSC6111HL1B-032K768T

DSC6101HL3B-024.0000T

DSC6111HL1B-010.0000T

DSC6111HL1B-014.7456T

DSC6111HL1B-024.0000T

DSC6111HE1B-050.0000T

DSC6101HE2B-012.0000T

DSC6101ML2B-066.6666T

DSC6101ML3B-025.0000T

DSC6101ML3B-027.0000T

DSC6101ML3B-016.6666T

DSC6101ML3B-014.7456T

DSC6101ML2B-072.0000T

DSC6111ME1B-012.0000T

DSC6101ML3B-032.0000T

DSC6101JL2B-033.3333T

DSC6101JL3B-038.4000T

DSC6101JL3B-050.0000T

DSC6101JL2B-026.0000T

DSC6111JE1B-033.3333T

DSC6111MI3B-025.0000T

DSC6102MI3B-080.0000T

DSC6102MI2B-027.0000T

DSC6101MI2B-025.0000T

DSC6112MI2B-025.0000T

DSC6112MI2B-014.7456T

DSC6101MI1B-027.0000T

DSC6111MI2B-100.0000T

DSC6102JI2B-100.0000T

DSC6101JI3B-075.0000T

DSC6101JI1B-024.0000T

DSC6111JI1B-024.0000T

DSC6111JI2B-032K768T

DSC6111JI2B-250K000T

DSC6111JI2B-432K000T

DSC6111JI2B-720K000T

DSC6112JI2B-001.0000T

DSC6112JI2B-032K768T

DSC6112JI2B-250K000T

DSC6112JI2B-432K000T

DSC6112JI2B-720K000T

DSC6111JI2B-004K000T

DSC6112JI2B-004K000T

DSC6101JI2B-025.0000T

DSC6102JI2B-025.0000T

DSC6102JI2B-027.0000T

DSC6111JI1B-025.0000T

DSC6111JI2B-024.0000T

DSC6101JI3B-439K000T

DSC6112JI1B-050.0000T

DSC6101JI2B-027.0000T

DSC6111JI1B-098.3040T

DSC6111JI2B-100K000T

DSC6111JI3B-100.0000T

DSC6102MI3B-038.4000T

DSC6111MI3B-033.3333T

DSC6101MI2B-024.0000T

DSC6101MI1B-050.0000T

DSC6101MI1B-024.0000T

DSC6102MI1B-500K000T

DSC6101MI1B-019.2000T

DSC6111MI2B-025.0000

DSC6102MI3B-038.4000

DSC6111MI3B-033.3333

DSC6101MI2B-024.0000

DSC6101MI1B-050.0000

DSC6101MI1B-024.0000

DSC6102MI1B-500K000

DSC6101MI1B-019.2000

DSC6111MI3B-025.0000

DSC6102MI3B-080.0000

DSC6102MI2B-027.0000

DSC6101MI2B-025.0000

DSC6112MI2B-025.0000

DSC6112MI2B-014.7456

DSC6101MI1B-027.0000

DSC6102JI2B-100.0000

DSC6101JI3B-075.0000

DSC6101JI1B-024.0000

DSC6111JI1B-024.0000

DSC6111JI2B-032K768

DSC6111JI2B-250K000

DSC6111JI2B-432K000

DSC6111JI2B-720K000
DSC6112JI2B-001.0000
DSC6112JI2B-032K768
DSC6112JI2B-250K000
DSC6112JI2B-432K000
DSC6112JI2B-720K000
DSC6111JI2B-004K000
DSC6112JI2B-004K000
DSC6101JI2B-025.0000
DSC6102JI2B-025.0000
DSC6102JI2B-027.0000
DSC6111JI1B-025.0000
DSC6111JI2B-024.0000
DSC6101JI3B-439K000
DSC6112JI1B-050.0000
DSC6101JI2B-027.0000
DSC6111JI1B-098.3040
DSC6111JI2B-100K000
DSC6111JI3B-100.0000
DSC6101JI2B-100.0000
DSC6101JI2B-024.0000
DSC6101JI2B-050.0000
DSC6101JI3B-100.0000
DSC6101JI3B-485K000
DSC6101JI2B-020.0000
DSC6111JI3B-012.0000
DSC6101JI1B-007K085
DSC6121JI2B-01BB
DSC6102JI3B-001.6800
DSC6101JI2B-040K000
DSC6101JI2B-012.2880
DSC6111JI1B-200K000

DSC6102JI1B-060.0000

DSC6101JI2B-019.2000

DSC6101JI1B-048.0000

DSC6111JI1B-028.1250

DSC6112JI2B-028.1250

DSC6111JI1B-008.0000

DSC6121JI3B-01GP

DSC6111JI3B-019.2000

DSC6102JI1B-500K000

DSC6101JI1B-019.2000

DSC6112JI2B-024.0000

DSC6101JI3B-038.4000

DSC6101JI2B-012.0000

DSC6101JI1B-080.0000

DSC6121JI2B-01MH

DSC6101HL3B-025.0000

DSC6101HL3B-027.0000

DSC6102HL2B-072.5000

DSC6101HL2B-072.5000

DSC6101HL2B-072.0000

DSC6111HL1B-032K768

DSC6101HL3B-024.0000

DSC6111HL1B-010.0000

DSC6111HL1B-014.7456

DSC6111HL1B-024.0000

DSC6111HE1B-050.0000

DSC6101HE2B-012.0000

DSC6101ML2B-066.6666

DSC6101ML3B-025.0000

DSC6101ML3B-027.0000

DSC6101ML3B-016.6666

DSC6111CI1B-026.0000

DSC6111CI1B-027.0000

DSC6111CI2B-074.2500

DSC6111CI2B-008.0000

DSC6111CI1B-100.0000

DSC6111CI1B-050.0000

DSC6111CI1B-048.0000

DSC6111CI1B-033.3330

DSC6111CI1B-025.0000

DSC6101CI2B-026.0000

DSC6111CI2B-025.0000

DSC6141CI3B-024.0000

DSC6111CI2B-016.0000

DSC6111CI1B-009.2160

DSC6111CI2B-012.0000

DSC6121CI2B-0261

DSC6101CI3B-003.1000

DSC6101CI3B-020.0000

DSC6111CI2B-020.0000

DSC6101AI1B-100.0000

DSC6101AI3B-002.0480

DSC6121AI2B-026B

DSC6141AI3B-127K000

DSC6111AI1B-018.4320

DSC6101AI2B-050.0000

DSC6111AI2B-008K192

DSC6111HL3B-027.0000

DSC6111HL3B-074.2500

DSC6122HE3B-01QK

DSC6111HL3B-060.0000

DSC6101HE1B-026.0000

DSC6122HE1B-021Y

DSC6111HE1B-054.0000

DSC6122HE1B-022K

DSC6122HE1B-022M

DSC6111HL1B-050.0000

DSC6101HL3B-001.0240

DSC6101HL3B-100.0000

DSC6111HE1B-024.0000

DSC6101HL1B-040.0000

DSC6161ME2B-01Q6

DSC6121ML3B-01QH

DSC6111ML3B-060.0000

DSC6101ME2B-002.5000

DSC6101ME3B-485K000

DSC6101ME1B-026.0000

DSC6102ML2B-008.0000

DSC6101ML3B-012.0000

DSC6101ML3B-052.0833

DSC6111ML1B-050.0000

DSC6111ML2B-025.0000

DSC6111ML1B-010.0000

DSC6111ML3B-001.0000

DSC6101ML3B-040.0000

DSC6111ML2B-048.0000

DSC6101ML1B-040.0000

DSC6121JE2B-01P0

DSC6152JL3B-027.0000

DSC6101JE3B-002.0972

DSC6111JE2B-025.0000

DSC6111JE1B-025.0000

DSC6121JE2B-01QU

DSC6111JL3B-014.6400

DSC6111JL3B-013.9122

DSC6101JE3B-485K000

DSC6101JL2B-032K768

DSC6112JE1B-062K500

DSC6101JL3B-127K000

DSC6101JE2B-013.0000

DSC6101JL3B-008.0000

DSC6101JL3B-032K768

DSC6101JL3B-032.0000

DSC6101JE2B-100.0000

DSC6112JE1B-004.0000

DSC6101JL1B-033.3330

DSC6111JE1B-024.0000

DSC6111JL1B-025.0000

DSC6101JL1B-025.0000

DSC6102JL2B-025.0000

DSC6102JL2B-008.0000

DSC6102JL2B-040.0000

DSC6102JL2B-024.0000

DSC6111JL2B-007.3728

DSC6111JL1B-050.0000

DSC6111JL1B-007.3728

DSC6111JE1B-054.0000

DSC6111JE1B-012.0000

DSC6101JE2B-025.0000

DSC6161JE3B-0241

DSC6161JE3B-0242

DSC6121JE3B-0247

DSC6121JE3B-024A

DSC6121JE3B-024B

DSC6101JL3B-001.0486

DSC6111JL2B-025.0000

DSC6111JL1B-010.0000

DSC6101JL3B-001.2000

DSC6111JE3B-010.0000

DSC6111JE3B-020.0000

DSC6121JL3B-0262

DSC6101JL2B-045.0000

DSC6111JL2B-010.0000

DSC6112JE1B-027.0000

DSC6111JE1B-028.1250

DSC6101JL1B-050.0000

DSC6111JE1B-005.0000

DSC6101JL1B-040.0000

DSC6111JL2B-048.0000

DSC6102CL3B-025.0000

DSC6101CE2B-025.0000

DSC6111CL2B-025.0000

DSC6101CL3B-024K576

DSC6101CL3B-024.5760

DSC6101CE1B-001.0240

DSC6102CL2B-004.0000

DSC6101CL3B-008.0000

DSC6111CL1B-025.6000

DSC6111CL2B-048.0000

DSC6101CL2B-008.0000

DSC6111BE1B-050.0000

DSC6111BE2B-025.0000

DSC6111HI1B-024.5760T

DSC6111HI1B-024.0000T

DSC6111HI1B-020.0000T

DSC6111HI1B-019.2000T

DSC6111HI1B-016.0000T

DSC6111HI1B-012.2880T

DSC6111HI1B-012.0000T

DSC6111HI1B-010.0000T

DSC6111HI1B-008.0000T

DSC6111HI1B-001.8432T

DSC6111HI2B-006.0000T

DSC6112HI1B-050.0000T

DSC6112HI2B-020.4800T

DSC6151HI2B-016.0000T

DSC6111HI1B-048.0000B

DSC6101HI1B-004.9152T

DSC6101HI1B-025.0000T

DSC6101HI1B-027.0000T

DSC6111HI2B-024.0000T

DSC6101HI2B-036.0000T

DSC6101HI1B-027.1200T

DSC6101HI1B-070.0000T

DSC6101HI1B-080.0000T

DSC6112MI2B-025.0000B

DSC6112MI3B-060.0000T

DSC6121MI2B-01MPT

DSC6122MI2B-01MQT

DSC6101MI1B-020.0000T

DSC6112MI1B-074.2500T

DSC6101MI3B-025.0000T

DSC6101MI2B-013.5600T

DSC6101MI1B-033.3300T

DSC6101MI1B-100.0000T

DSC6102MI2B-074.2500T

DSC6102MI2B-008.0000T

DSC6102MI3B-030.0000T

DSC6102MI2B-030.0000T

DSC6112MI2B-093.6000T

DSC6102MI1B-016.6666T

DSC6112MI1B-024.0000T

DSC6102MI2B-024.0000T

DSC6111MI1B-080.0000T

DSC6101MI3B-011.2890T

DSC6111MI2B-024.0000T

DSC6111MI1B-027.0000T

DSC6112MI3B-027.0000T

DSC6112MI1B-027.0000T

DSC6111MI2B-020.0000T

DSC6101MI1B-001.5000T

DSC6111JI2B-100.0000T

DSC6111JI2B-074.2500T

DSC6111JI2B-027.0000T

DSC6102JI1B-080.0000T

DSC6101JI2B-037.1250T

DSC6111JI2B-025.0000T

DSC6112JI1B-060.0000T

DSC6101JI2B-026.0000T

DSC6101JI1B-020.0000T

DSC6111JI2B-024.8060T

DSC6102JI1B-024.0000T

DSC6102JI2B-072.0000T

DSC6111JI3B-024.8060T

DSC6101JI2B-016.7772T

DSC6101JI3B-048.0000T

DSC6101JI2B-032K768T

DSC6101JI2B-049.1520T

DSC6101JI2B-045.1584T

DSC6101JI2B-048.0000T

DSC6111JI2B-012.0000T

DSC6121JI3B-01VGT

DSC6121JI3B-01VJT

DSC6121JI3B-01VKT

DSC6101JI1B-006K000T

DSC6141JI3B-127K000T

DSC6101JI2B-059.1360T

DSC6122JI2B-01WWT

DSC6101JI2B-033.3333T

DSC6101JI1B-050.0000T

DSC6101JI1B-002.0000T

DSC6101JI2B-033.0000T

DSC6101JI1B-012.0000T

DSC6111JI1B-074.2500T

DSC6111JI1B-100.0000T

DSC6111JI1B-060.0000T

DSC6111JI1B-050.0000T

DSC6111JI1B-048.0000T

DSC6111JI1B-033.3330T

DSC6111JI1B-032.0000T

DSC6111JI1B-030.0000T

DSC6111JI1B-027.0000T

DSC6111JI1B-026.0000T

DSC6111JI1B-024.5760T

DSC6111JI1B-020.0000T

DSC6111JI1B-019.2000T

DSC6111JI1B-016.0000T

DSC6111JI1B-014.7456T

DSC6111JI1B-012.0000T

DSC6111JI1B-010.0000T

DSC6111JI1B-004.0000T

DSC6111JI1B-001.8432T

DSC6111JI2B-006.0000T

DSC6101JI1B-007.3728T

DSC6111JI2B-032K000T

DSC6101JI3B-001.2000T

DSC6111JI3B-012.2880T

DSC6111JI2B-050.0000T

DSC6111JI1B-032K768T

DSC6111JI3B-026.0000T

DSC6101JI3B-025.0000T

DSC6101JI3B-008.0000T

DSC6101JI2B-004.0000T

DSC6111JI1B-016.3840T

DSC6111JI3B-048.0000T

DSC6111CI1B-016.0000T

DSC6101CI2B-050.0000T

DSC6101CI2B-025.0000T

DSC6101CI2B-070.0000T

DSC6101CI2B-020.0000T

DSC6101CI2B-024.0000T

DSC6101CI2B-048.0000T

DSC6101CI3B-025.1658T

DSC6102CI2B-100.0000T

DSC6101CI2B-100.0000T

DSC6101CI1B-025.0000T

DSC6111CI1B-001.8432T

DSC6111CI1B-008.0000T

DSC6111CI1B-010.0000T

DSC6111CI1B-012.0000T

DSC6111CI1B-014.7456T

DSC6111CI1B-019.2000T

DSC6111CI1B-020.0000T

DSC6111CI1B-024.0000T

DSC6111CI1B-024.5760T

DSC6111CI1B-026.0000T

DSC6111CI1B-027.0000T

DSC6111CI2B-074.2500T

DSC6111CI2B-008.0000T

DSC6111CI1B-100.0000T

DSC6111CI1B-050.0000T

DSC6111CI1B-048.0000T

DSC6111CI1B-033.3330T

DSC6111CI1B-025.0000T

DSC6101CI2B-026.0000T

DSC6111CI2B-025.0000T

DSC6141CI3B-024.0000T

DSC6111CI2B-016.0000T

DSC6111CI1B-009.2160T

DSC6111CI2B-012.0000T

DSC6121CI2B-0261T

DSC6101CI3B-003.1000T

DSC6101CI3B-020.0000T

DSC6111CI2B-020.0000T

DSC6101CI1B-010.0000T

DSC6111CI3B-024.0000T

DSC6112CI3B-345K600T

DSC6111BI1B-008.0000T

DSC6111BI1B-012.0000T

DSC6111BI1B-012.2880T

DSC6111BI1B-020.0000T

DSC6111BI1B-024.0000T

DSC6111BI1B-024.5760T

DSC6111BI1B-025.0000T

DSC6111BI1B-033.3330T

DSC6111BI1B-040.0000T

DSC6111BI1B-048.0000T

DSC6111BI1B-050.0000T

DSC6111BI1B-100.0000T

DSC6111BI2B-006.0000T

DSC6111BI2B-008.0000T

DSC6111BI2B-012.2880T

DSC6111BI2B-016.0000T

DSC6111BI2B-020.0000T

DSC6111BI2B-024.0000T

DSC6111BI2B-024.5760T

DSC6111BI2B-025.0000T

DSC6111BI2B-033.3330T

DSC6111BI2B-048.0000T

DSC6111BI2B-050.0000T

DSC6111BI2B-100.0000T

DSC6101BI2B-050.0000T

DSC6101AI1B-100.0000T

DSC6101AI3B-002.0480T

DSC6121AI2B-026BT

DSC6141AI3B-127K000T

DSC6111AI1B-018.4320T

DSC6101AI2B-050.0000T

DSC6111AI2B-008K192T

DSC6121HA3B-01QJT

DSC6101HA3B-025.0000T

DSC6101HA3B-050.0000T

DSC6101HA1B-025.0000T

DSC6112HA3B-048.0000T

DSC6112HA3B-075.0000T

DSC6111HA3B-025.0000T

DSC6111HA2B-050.0000T

DSC6101HA3B-008.1920T

DSC6112HA2B-025.0000T

DSC6112HA2B-014.7500T

DSC6102ML2B-008.0000T

DSC6101ML3B-012.0000T

DSC6101ML3B-052.0833T
DSC6111ML1B-050.0000T
DSC6111ML2B-025.0000T
DSC6111ML1B-010.0000T
DSC6111ML3B-001.0000T
DSC6101ML3B-040.0000T
DSC6111ML2B-048.0000T
DSC6101ML1B-040.0000T
DSC6121JE2B-01P0T
DSC6152JL3B-027.0000T
DSC6101JE3B-002.0972T
DSC6111JE2B-025.0000T
DSC6111JE1B-025.0000T
DSC6121JE2B-01QUT
DSC6111JL3B-014.6400T
DSC6111JL3B-013.9122T
DSC6101HI1B-012.0000T
DSC6112HI2B-025.0000T
DSC6151HI2B-025.0000T
DSC6151HI2B-027.0000T
DSC6102HI2B-024.0000T
DSC6111HI3B-027.0000T
DSC6111HI3B-074.2500T
DSC6101JL2B-045.0000T
DSC6111JL2B-010.0000T
DSC6112JE1B-027.0000T
DSC6111JE1B-028.1250T
DSC6101JL1B-050.0000T
DSC6111JE1B-005.0000T
DSC6101JL1B-040.0000T
DSC6111JL2B-048.0000T
DSC6102CL3B-025.0000T

DSC6101CE2B-025.0000T

DSC6111CL2B-025.0000T

DSC6101CL3B-024K576T

DSC6101CL3B-024.5760T

DSC6101CE1B-001.0240T

DSC6102CL2B-004.0000T

DSC6101CL3B-008.0000T

DSC6111CL1B-025.6000T

DSC6111CL2B-048.0000T

DSC6101CL2B-008.0000T

DSC6111BE1B-050.0000T

DSC6111BE2B-025.0000T

DSC6111BE3B-025.0000T

DSC6102BE1B-950K000T

DSC6102BE1B-001.0500T

DSC6101AE1B-457K000T

DSC6111HI1B-032K768B

DSC6111HI3B-025.0000T

DSC6101HI1B-005.0000T

DSC6112HI2B-100.0000T

DSC6111HI2B-033.3300T

DSC6101HI2B-024.7000T

DSC6101HI2B-025.0000T

DSC6101HI2B-027.0000T

DSC6111HI1B-050.0000T

DSC6111HI1B-048.0000T

DSC6111HI1B-033.3330T

DSC6111HI1B-027.0000T

DSC6111HI1B-025.0000T

DSC6101CI1B-010.0000

DSC6111CI3B-024.0000

DSC6112CI3B-345K600

DSC6111BI1B-008.0000

DSC6111BI1B-012.0000

DSC6111BI1B-012.2880

DSC6111BI1B-020.0000

DSC6111BI1B-024.0000

DSC6111BI1B-024.5760

DSC6111BI1B-025.0000

DSC6111BI1B-033.3330

DSC6111BI1B-040.0000

DSC6111BI1B-048.0000

DSC6111BI1B-050.0000

DSC6111BI1B-100.0000

DSC6111BI2B-006.0000

DSC6111BI2B-008.0000

DSC6111BI2B-012.2880

DSC6111BI2B-016.0000

DSC6111BI2B-020.0000

DSC6111BI2B-024.0000

DSC6111BI2B-024.5760

DSC6111BI2B-025.0000

DSC6111BI2B-033.3330

DSC6111BI2B-048.0000

DSC6111BI2B-050.0000

DSC6111BI2B-100.0000

DSC6101BI2B-050.0000

DSC6122HE1B-021YT

DSC6111HE1B-054.0000T

DSC6122HE1B-022KT

DSC6122HE1B-022MT

DSC6111HL1B-050.0000T

DSC6101HL3B-001.0240T

DSC6101HL3B-100.0000T

DSC6111HE1B-024.0000T
DSC6101HL1B-040.0000T
DSC6161ME2B-01Q6T
DSC6121ML3B-01QHT
DSC6111ML3B-060.0000T
DSC6101ME2B-002.5000T
DSC6101ME3B-485K000T
DSC6101ME1B-026.0000T
DSC6101JE3B-485K000T
DSC6101JL2B-032K768T
DSC6112JE1B-062K500T
DSC6101JL3B-127K000T
DSC6101JE2B-013.0000T
DSC6101JL3B-008.0000T
DSC6101JL3B-032K768T
DSC6101JL3B-032.0000T
DSC6101JE2B-100.0000T
DSC6112JE1B-004.0000T
DSC6101JL1B-033.3330T
DSC6111JE1B-024.0000T
DSC6111JL1B-025.0000T
DSC6101JL1B-025.0000T
DSC6102JL2B-025.0000T
DSC6102JL2B-008.0000T
DSC6102JL2B-040.0000T
DSC6102JL2B-024.0000T
DSC6111JL2B-007.3728T
DSC6111JL1B-050.0000T
DSC6111JL1B-007.3728T
DSC6111JE1B-054.0000T
DSC6111JE1B-012.0000T
DSC6101JE2B-025.0000T

DSC6161JE3B-0241T

DSC6161JE3B-0242T

DSC6121JE3B-0247T

DSC6121JE3B-024AT

DSC6121JE3B-024BT

DSC6101JL3B-001.0486T

DSC6111JL2B-025.0000T

DSC6111JL1B-010.0000T

DSC6101JL3B-001.2000T

DSC6111JE3B-010.0000T

DSC6111JE3B-020.0000T

DSC6121JL3B-0262T

DSC6101HA2B-072.0000

DSC6101HA3B-PROG

DSC6101HA2B-072.5000

DSC6101HA3B-024.0000

DSC6111HA3B-024.0000

DSC6111HA2B-024.0000

DSC6101MA3B-019.2000

DSC6101MA3B-027.0000

DSC6101MA3B-PROG

DSC6111MA3B-050.0000

DSC6101MA2B-020.0000

DSC6111MA1B-033.0000

DSC6101MA3B-016.6666

DSC6111MA1B-033.3300

DSC6101MA3B-026.0000

DSC6101MA1B-008.0000

DSC6101JA2B-025.0000

DSC6101JA2B-027.0000

DSC6101JA3B-PROG

DSC6102JA1B-125K000

DSC6102JA1B-010K000
DSC6101JA2B-050.0000
DSC6101JA3B-024.0000
DSC6101HI3B-019.2000
DSC6112HI2B-001.0000
DSC6111HI2B-032K768
DSC6111HI2B-250K000
DSC6111HI2B-432K000
DSC6111HI2B-720K000
DSC6112HI2B-032K768
DSC6112HI2B-250K000
DSC6112HI2B-432K000
DSC6112HI2B-720K000
DSC6111HI2B-004K000
DSC6112HI2B-004K000
DSC6111HI3B-010.0000
DSC6111HI1B-032K768
DSC6101HI2B-080.0000
DSC6102HI2B-025.0000
DSC6111HI2B-012.0000
DSC6101HI2B-010.0000
DSC6111HI1B-013.5600
DSC6111HI1B-080.0000
DSC6101HI1B-007K085
DSC6101HI3B-100.0000
DSC6101HI1B-012.0000
DSC6112HI2B-025.0000
DSC6151HI2B-025.0000
DSC6151HI2B-027.0000
DSC6102HI2B-024.0000
DSC6111HI3B-027.0000
DSC6111HI3B-074.2500

DSC6111HI2B-100.0000
DSC6101MI2B-048.0000
DSC6111MI2B-027.0000
DSC6111MI2B-024.5454
DSC6101MI2B-006.1679
DSC6111MI2B-006.1679
DSC6102MI2B-125K000
DSC6101MI2B-008.0000
DSC6101JE1B-022.4000T
DSC6101JE3B-032K768T
DSC6101HI3B-019.2000T
DSC6112HI2B-001.0000T
DSC6111HI2B-032K768T
DSC6111HI2B-250K000T
DSC6111HI2B-432K000T
DSC6111HI2B-720K000T
DSC6112HI2B-032K768T
DSC6112HI2B-250K000T
DSC6112HI2B-432K000T
DSC6112HI2B-720K000T
DSC6111HI2B-004K000T
DSC6112HI2B-004K000T
DSC6111HI3B-010.0000T
DSC6111HI1B-032K768T
DSC6101HI2B-080.0000T
DSC6102HI2B-025.0000T
DSC6111HI2B-012.0000T
DSC6101HI2B-010.0000T
DSC6111HI1B-013.5600T
DSC6111HI1B-080.0000T
DSC6101HI1B-007K085T
DSC6101HI3B-100.0000T

DSC6111BE3B-025.0000
DSC6102BE1B-950K000
DSC6102BE1B-001.0500
DSC6101AE1B-457K000
DSC6111HL3B-027.0000T
DSC6111HL3B-074.2500T
DSC6122HE3B-01QKT
DSC6111HL3B-060.0000T
DSC6101HE1B-026.0000T
DSC6111HI2B-100.0000T
DSC6101MI2B-048.0000T
DSC6111MI2B-027.0000T
DSC6111MI2B-024.5454T
DSC6101MI2B-006.1679T
DSC6111MI2B-006.1679T
DSC6102MI2B-125K000T
DSC6101MI2B-008.0000T
DSC6111MI2B-025.0000T
DSC6101JI2B-100.0000T
DSC6101JI2B-024.0000T
DSC6101JI2B-050.0000T
DSC6101JI3B-100.0000T
DSC6101JI3B-485K000T
DSC6101JI2B-020.0000T
DSC6111JI3B-012.0000T
DSC6101JI1B-007K085T
DSC6121JI2B-01BBT
DSC6102JI3B-001.6800T
DSC6101JI2B-040K000T
DSC6101JI2B-012.2880T
DSC6111JI1B-200K000T
DSC6102JI1B-060.0000T

DSC6101JI2B-019.2000T

DSC6101JI1B-048.0000T

DSC6111JI1B-028.1250T

DSC6112JI2B-028.1250T

DSC6111JI1B-008.0000T

DSC6121JI3B-01GPT

DSC6111JI3B-019.2000T

DSC6102JI1B-500K000T

DSC6101JI1B-019.2000T

DSC6112JI2B-024.0000T

DSC6101JI3B-038.4000T

DSC6101JI2B-012.0000T

DSC6101JI1B-080.0000T

DSC6121JI2B-01MHT

DSC6101HA2B-072.0000T

DSC6101HA3B-PROGT

DSC6101HA2B-072.5000T

DSC6101HA3B-024.0000T

DSC6111HA3B-024.0000T

DSC6111HA2B-024.0000T

DSC6101MA3B-019.2000T

DSC6101MA3B-027.0000T

DSC6101MA3B-PROGT

DSC6111MA3B-050.0000T

DSC6101MA2B-020.0000T

DSC6111MA1B-033.0000T

DSC6101MA3B-016.6666T

DSC6111MA1B-033.3300T

DSC6101MA3B-026.0000T

DSC6101MA1B-008.0000T

DSC6101JA2B-025.0000T

DSC6101JA2B-027.0000T

DSC6101JA3B-PROGT

DSC6102JA1B-125K000T

DSC6102JA1B-010K000T

DSC6101JA2B-050.0000T

DSC6101JA3B-024.0000T

DSC6121HA3B-01QJ

DSC6101HA3B-025.0000

DSC6101HA3B-050.0000

DSC6101HA1B-025.0000

DSC6112HA3B-048.0000

DSC6112HA3B-075.0000

DSC6111HA3B-025.0000

DSC6111HA2B-050.0000

DSC6101HA3B-008.1920

DSC6112HA2B-025.0000

DSC6112HA2B-014.7500

DSC6101HA3B-027.1200

DSC6101HA3B-100.0000

DSC6112HA1B-080.0000

DSC6112HA1B-070.0000

DSC6102HA1B-080.0000

DSC6102HA1B-070.0000

DSC6121MA3B-01QJ

DSC6102MA2B-008.0000

DSC6101MA3B-032.0000

DSC6111MA2B-025.0000

DSC6111MA1B-010.0000

DSC6112MA1B-014.7456

DSC6103MA3B-PROG

DSC6101JA1B-020.0000

DSC6141JA3B-127K000

DSC6111JA3B-050.0000

DSC6121JA3B-026D

DSC6102JA1B-050.0000

DSC6101JA3B-026.0000

DSC6101JA1B-080.0000

DSC6121JA3B-0295

DSC6121JA3B-0296

DSC6101JA1B-050.0000

DSC6111JA1B-032K768

DSC6103JA3B-PROG

DSC6111JA3B-040.0000

DSC6101CA1B-100.0000

DSC6101CA3B-PROG

DSC6101CA3B-008.0000

DSC6152CA3B-024.4800

DSC6102CA1B-025.0000

DSC6101CA3B-460K800

DSC6103CA3B-PROG

DSC6122CA3B-02BB

DSC6101BA1B-100.0000

DSC6101BA3B-PROG

DSC6101BA3B-100K000

DSC6103BA3B-PROG

DSC6101AA3B-PROG

DSC6101AA3B-016.3840

DSC6121AA3B-026D

DSC6101AA3B-003K520

DSC6101AA3B-001.0240

DSC6103AA3B-PROG

DSC6111HI3B-025.0000

DSC6101HI1B-005.0000

DSC6112HI2B-100.0000

DSC6111HI2B-033.3300

DSC6101HI2B-024.7000

DSC6101HI2B-025.0000

DSC6101HI2B-027.0000

DSC6111HI1B-050.0000

DSC6111HI1B-048.0000

DSC6111HI1B-033.3330

DSC6101HI1B-080.0000

DSC6112MI3B-060.0000

DSC6121MI2B-01MP

DSC6122MI2B-01MQ

DSC6101MI1B-020.0000

DSC6112MI1B-074.2500

DSC6101MI3B-025.0000

DSC6101MI2B-013.5600

DSC6101MI1B-033.3300

DSC6101MI1B-100.0000

DSC6102MI2B-074.2500

DSC6111MI2B-100.0000

DSC6102MI2B-008.0000

DSC6102MI3B-030.0000

DSC6102MI2B-030.0000

DSC6112MI2B-093.6000

DSC6102MI1B-016.6666

DSC6112MI1B-024.0000

DSC6102MI2B-024.0000

DSC6111MI1B-080.0000

DSC6101MI3B-011.2890

DSC6111MI2B-024.0000

DSC6111MI1B-027.0000

DSC6112MI3B-027.0000

DSC6112MI1B-027.0000

DSC6111MI2B-020.0000

DSC6101MI1B-001.5000

DSC6111JI2B-100.0000

DSC6111JI2B-074.2500

DSC6111JI2B-027.0000

DSC6102JI1B-080.0000

DSC6101JI2B-037.1250

DSC6111JI2B-025.0000

DSC6112JI1B-060.0000

DSC6101JI2B-026.0000

DSC6101JI1B-020.0000

DSC6111JI2B-024.8060

DSC6102JI1B-024.0000

DSC6102JI2B-072.0000

DSC6111JI3B-024.8060

DSC6101JI2B-016.7772

DSC6101JI3B-048.0000

DSC6101JI2B-032K768

DSC6101JI2B-049.1520

DSC6101JI2B-045.1584

DSC6101JI2B-048.0000

DSC6111JI2B-012.0000

DSC6121JI3B-01VG

DSC6121JI3B-01VJ

DSC6121JI3B-01VK

DSC6101JI1B-006K000

DSC6141JI3B-127K000

DSC6101JI2B-059.1360

DSC6122JI2B-01WW

DSC6101JI2B-033.3333

DSC6101JI1B-050.0000

DSC6101JI1B-002.0000

DSC6101JI2B-033.0000

DSC6101JI1B-012.0000

DSC6111JI1B-074.2500

DSC6111JI1B-100.0000

DSC6111JI1B-060.0000

DSC6111JI1B-050.0000

DSC6111JI1B-048.0000

DSC6111JI1B-033.3330

DSC6111JI1B-032.0000

DSC6111JI1B-030.0000

DSC6111JI1B-027.0000

DSC6111JI1B-026.0000

DSC6111JI1B-024.5760

DSC6111JI1B-020.0000

DSC6111JI1B-019.2000

DSC6111JI1B-016.0000

DSC6111JI1B-014.7456

DSC6111JI1B-012.0000

DSC6111JI1B-010.0000

DSC6111JI1B-004.0000

DSC6111JI1B-001.8432

DSC6111JI2B-006.0000

DSC6101JI1B-007.3728

DSC6101ML3B-014.7456

DSC6101ML2B-072.0000

DSC6111ME1B-012.0000

DSC6101ML3B-032.0000

DSC6101JL2B-033.3333

DSC6101JL3B-038.4000

DSC6101JL3B-050.0000

DSC6101JL2B-026.0000

DSC6111JE1B-033.3333

DSC6121JL2B-015G

DSC6111JL2B-008.0000

DSC6121JL2B-0170

DSC6101HA3B-027.1200T

DSC6101HA3B-100.0000T

DSC6112HA1B-080.0000T

DSC6112HA1B-070.0000T

DSC6102HA1B-080.0000T

DSC6102HA1B-070.0000T

DSC6121MA3B-01QJT

DSC6102MA2B-008.0000T

DSC6101MA3B-032.0000T

DSC6111MA2B-025.0000T

DSC6111MA1B-010.0000T

DSC6112MA1B-014.7456T

DSC6103MA3B-PROGT

DSC6101JA1B-020.0000T

DSC6141JA3B-127K000T

DSC6111JA3B-050.0000T

DSC6121JA3B-026DT

DSC6102JA1B-050.0000T

DSC6101JA3B-026.0000T

DSC6101JA1B-080.0000T

DSC6121JA3B-0295T

DSC6121JA3B-0296T

DSC6101JA1B-050.0000T

DSC6111JA1B-032K768T

DSC6103JA3B-PROGT

DSC6111JA3B-040.0000T

DSC6101CA1B-100.0000T

DSC6101CA3B-PROGT

DSC6101CA3B-008.0000T

DSC6152CA3B-024.4800T

DSC6102CA1B-025.0000T

DSC6101CA3B-460K800T

DSC6103CA3B-PROGT

DSC6122CA3B-02BBT

DSC6101BA1B-100.0000T

DSC6101BA3B-PROGT

DSC6101BA3B-100K000T

DSC6103BA3B-PROGT

DSC6101AA3B-PROGT

DSC6101AA3B-016.3840T

DSC6121AA3B-026DT

DSC6101AA3B-003K520T

DSC6101AA3B-001.0240T

DSC6103AA3B-PROGT

DSC6121JL2B-015GT

DSC6111JL2B-008.0000T

DSC6121JL2B-0170T

DSC6101JL3B-025.0000T

DSC6121JE1B-0198T

DSC6111JE1B-033.0000T

DSC6101JL2B-033.0000T

DSC6101JE3B-024.0000T

DSC6101JE1B-024.0000T

DSC6101JE1B-050.0000T

DSC6111JE2B-100.0000T

DSC6101JL3B-027.0000T

DSC6102JL1B-088.0000T

DSC6102JL1B-033.0000T

DSC6112JE1B-100.0000T

DSC6121JE1B-01HDT

DSC6121JE1B-01HET

DSC6121JE1B-01HGT

DSC6101JE1B-030.0000T

DSC6101JE1B-033.0000T

DSC6101JL3B-025.0000

DSC6121JE1B-0198

DSC6111JE1B-033.0000

DSC6101JL2B-033.0000

Ultra-Small, Ultra-Low Power MEMS Oscillator

Features

- Wide Frequency Range: 3.5 kHz to 100 MHz
- Ultra-Low Power Consumption: 3 mA/1 μ A (Active/Standby)
- Various Drive Strengths Available
- Ultra-Small Footprints
 - 1.6 mm x 1.2 mm VFLGA
 - 2.0 mm x 1.6 mm VFLGA
 - 2.5 mm x 2.0 mm VLGA
 - 3.2 mm x 2.5 mm VDFN
 - 5.0 mm x 3.2 mm VDFN
 - 7.0 mm x 5.0 mm VDFN
- Frequency Select Input Supports Two Pre-Defined Frequencies
- High Stability: ± 20 ppm, ± 25 ppm, ± 50 ppm
- Wide Temperature Range
 - Automotive: -40°C to $+125^{\circ}\text{C}$
 - Ext. Industrial: -40°C to $+105^{\circ}\text{C}$
 - Industrial: -40°C to $+85^{\circ}\text{C}$
 - Ext. Commercial: -20° to $+70^{\circ}\text{C}$
- Excellent Shock and Vibration Immunity
 - Qualified to MIL-STD-883
- High Reliability
 - 20x Better MTF Than Quartz Oscillators
- Supply Range of 1.71V to 3.63V
- Short Sample Lead Time: <2 weeks
- Lead Free & RoHS Compliant
- Automotive Version Available: DSA61xxB

Applications

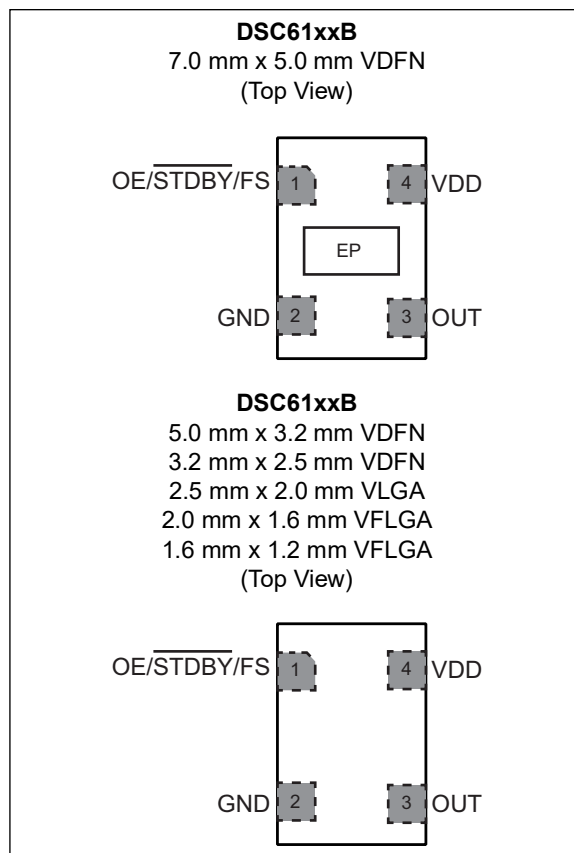
- Low Power/Portable Applications: IoT, Embedded/Smart Devices
- Consumer: Home Healthcare, Fitness Devices, Home Automation
- Industrial: Building/Factory Automation, Surveillance Camera
- 10BASE-T1S
- Automotive (Please Refer to the DSA61xx Family)

General Description

The DSC61xxB family of MEMS oscillators combines the industry leading low power consumption and ultra-small packages with exceptional frequency stability and jitter performance over temperature. The single-output DSC61xxB MEMS oscillators are excellent choices for use as clock references in small, battery-powered devices such as wearable and Internet of Things (IoT) devices in which small size, low power consumption, and long-term reliability are paramount.

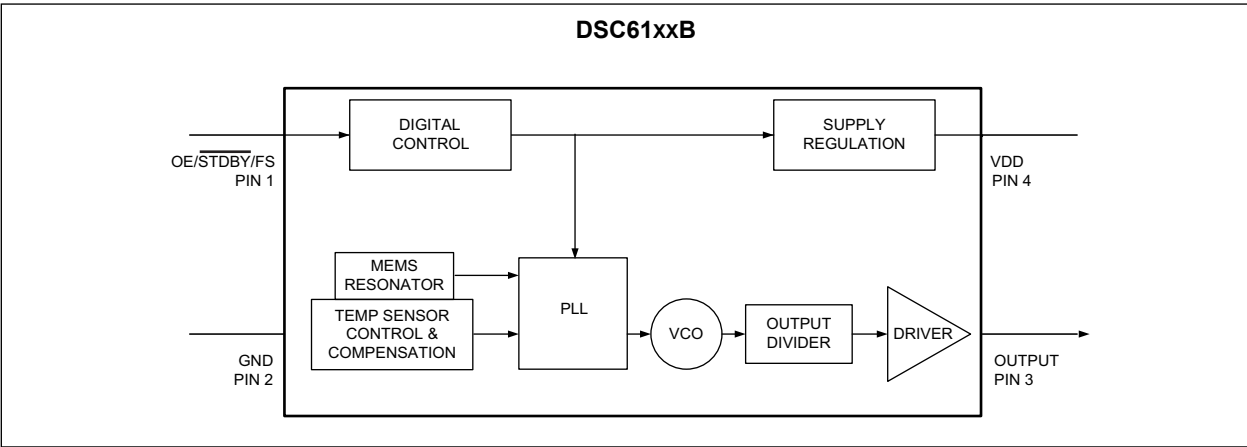
The DSC61xxB family is available in 1.6 mm x 1.2 mm & 2.0 mm x 1.6 mm VFLGA, 7.0 mm x 5.0 mm, 5.0 mm x 3.2 mm & 3.2 mm x 2.5 mm VDFN, and 2.5 mm x 2.0 mm VLGA packages. These packages are “drop-in” replacements for standard 4-pin CMOS quartz crystal oscillators. The Automotive Grade AEC-Q100 qualified option is also available for this device.

Package Types



DSC61XXB

Block Diagram



1.0 ELECTRICAL CHARACTERISTICS

Absolute Maximum Ratings

Supply Voltage -0.3V to +4.0V
 Input Voltage (V_{IN}) -0.3V to $V_{DD}+0.3V$
 ESD Protection 4 kV HBM, 400V MM, 2 kV CDM

ELECTRICAL CHARACTERISTICS

Electrical Characteristics: Unless otherwise indicated, $V_{DD} = 1.8V -5\%$ to $3.3V +10\%$, $T_A = -40^{\circ}C$ to $+125^{\circ}C$.						
Parameters	Sym.	Min.	Typ.	Max.	Units	Conditions
Supply Voltage	V_{DD}	1.71	—	3.63	V	Note 1
Power Supply Ramp	t_{PU}	0.1	—	100	ms	Note 8
Active Supply Current	I_{DD}	—	3.0	—	mA	$f_{OUT} = 27$ MHz, $V_{DD} = 1.8V$, No Load
Standby Supply Current	I_{STBY}	—	1	—	μA	$V_{DD} = 1.8/2.5V$, Note 2
		—	1.5	—		$V_{DD} = 3.3V$, Note 2
Output Duty Cycle	SYM	45	—	55	%	—
Frequency	f_0	0.0035	—	100	MHz	Standard and High drive strength
		0.0035	—	60		Low drive strength
Frequency Stability	Δf	—	—	± 20 ± 25 ± 50	ppm	All temp ranges, Note 3
Aging	Δf	—	—	± 5	ppm	1st year @ $25^{\circ}C$
		—	—	± 1		Per year after first year
Startup Time	t_{SU}	—	—	1.5	ms	From 90% V_{DD} to valid clock output, $T = 25^{\circ}C$
Input Logic Levels	V_{IH}	$0.7 \times V_{DD}$	—	—	V	Input Logic High, Note 4
	V_{IL}	—	—	$0.3 \times V_{DD}$	V	Input Logic Low, Note 4
Output Disable Time	t_{DA}	—	—	200 + 2 Periods	ns	Note 5
Output Enable Time	t_{EN}	—	—	1	μs	Note 6
Enable Pull-up Resistor	—	—	300	—	k Ω	If configured, Note 7

Note 1: Pin 4 V_{DD} should be filtered with 0.1 μF capacitor.

2: Not including current through pull-up resistor on EN pin (if configured). Higher standby current seen at $>3.3V V_{DD}$.

3: Includes frequency variations due to initial tolerance, temp. and power supply voltage.

4: Input waveform must be monotonic with rise/fall time < 10 ms

5: Output Disable time takes up to two periods of the output waveform + 200 ns.

6: For parts configured with OE, not Standby.

7: Output is enabled if pad is floated or not connected.

8: Time to reach 90% of target V_{DD} . Power ramp rise must be monotonic.

DSC61XXB

ELECTRICAL CHARACTERISTICS (CONTINUED)

Electrical Characteristics: Unless otherwise indicated, $V_{DD} = 1.8V -5\%$ to $3.3V +10\%$, $T_A = -40^{\circ}C$ to $+125^{\circ}C$.							
Parameters	Sym.	Min.	Typ.	Max.	Units	Conditions	
Output Logic Levels	V_{OH}	$0.8 \times V_{DD}$	—	—	V	Output Logic High, $I = -1$ mA, Low Drive	
						Output Logic High, $I = -3$ mA, Std. Drive	
						Output Logic High, $I = -6$ mA, High Drive	
	V_{OL}	—	—	$0.2 \times V_{DD}$	V	Output Logic Low, $I = 1$ mA, Low Drive	
						Output Logic Low, $I = 3$ mA, Std. Drive	
						Output Logic Low, $I = 6$ mA, High Drive	
Output Transition Time Rise Time/Fall Time	t_{RX}/t_{FX}	—	3.2	5.4	ns	DSC61x3 Low Drive, 20% to 80% $C_L = 5$ pF	$V_{DD} = 1.8V$
		—	2.0	3.3	ns		$V_{DD} = 2.5V/3.3V$
	t_{RY}/t_{FY}	—	1	1.5	ns	DSC61x2 High Drive, 20% to 80% $C_L = 15$ pF	$V_{DD} = 1.8V$
		—	0.5	1.0	ns		$V_{DD} = 2.5V/3.3V$
		—	1.2	2.0	ns	DSC61x1 Std Drive, 20% to 80% $C_L = 10$ pF	$V_{DD} = 1.8V$
		—	0.6	1.2	ns		$V_{DD} = 2.5V/3.3V$
Period Jitter, RMS	J_{PER}	—	8.5	—	pS_{RMS}	Std. and High Drive, $f_{OUT} = 27$ MHz	$V_{DD} = 1.8V$
		—	7	—			$V_{DD} = 2.5V/3.3V$
		—	26	—		Low Drive, $f_{OUT} = 27$ MHz	$V_{DD} = 1.8V$
		—	13	—			$V_{DD} = 2.5V/3.3V$

- Note 1:** Pin 4 V_{DD} should be filtered with 0.1 μF capacitor.
- 2:** Not including current through pull-up resistor on EN pin (if configured). Higher standby current seen at $>3.3V$ V_{DD} .
- 3:** Includes frequency variations due to initial tolerance, temp. and power supply voltage.
- 4:** Input waveform must be monotonic with rise/fall time < 10 ms
- 5:** Output Disable time takes up to two periods of the output waveform + 200 ns.
- 6:** For parts configured with OE, not Standby.
- 7:** Output is enabled if pad is floated or not connected.
- 8:** Time to reach 90% of target V_{DD} . Power ramp rise must be monotonic.

ELECTRICAL CHARACTERISTICS (CONTINUED)

Electrical Characteristics: Unless otherwise indicated, $V_{DD} = 1.8V -5\%$ to $3.3V +10\%$, $T_A = -40^{\circ}C$ to $+125^{\circ}C$.							
Parameters	Sym.	Min.	Typ.	Max.	Units	Conditions	
Cycle-to-Cycle Jitter (Peak)	J_{Cy-Cy}	—	50	70	ps	Std. and High Drive, $f_{OUT} = 27\text{ MHz}$	$V_{DD} = 1.8V$
		—	35	60			$V_{DD} = 2.5V/3.3V$
		—	180	300		Low Drive, $f_{OUT} = 27\text{ MHz}$	$V_{DD} = 1.8V$
		—	90	150			$V_{DD} = 2.5V/3.3V$
Period Jitter (Peak-to-Peak)	J_{PP}	—	70	—	ps	Std. and High Drive, $f_{OUT} = 27\text{ MHz}$	$V_{DD} = 1.8V$
		—	60	—			$V_{DD} = 2.5V/3.3V$
		—	200	—		Low Drive, $f_{OUT} = 27\text{ MHz}$	$V_{DD} = 1.8V$
		—	100	—			$V_{DD} = 2.5V/3.3V$

- Note 1:** Pin 4 V_{DD} should be filtered with 0.1 μF capacitor.
- 2:** Not including current through pull-up resistor on EN pin (if configured). Higher standby current seen at $>3.3V V_{DD}$.
- 3:** Includes frequency variations due to initial tolerance, temp. and power supply voltage.
- 4:** Input waveform must be monotonic with rise/fall time $< 10\text{ ms}$
- 5:** Output Disable time takes up to two periods of the output waveform + 200 ns.
- 6:** For parts configured with OE, not Standby.
- 7:** Output is enabled if pad is floated or not connected.
- 8:** Time to reach 90% of target V_{DD} . Power ramp rise must be monotonic.

TEMPERATURE SPECIFICATIONS (Note 1)

Parameters	Sym.	Min.	Typ.	Max.	Units	Conditions
Temperature Ranges						
Junction Operating Temperature	T_J	-40	—	+150	$^{\circ}C$	—
Storage Ambient Temperature Range	T_A	-55	—	+150	$^{\circ}C$	—
Soldering Temperature	T_S	—	+260	—	$^{\circ}C$	40 sec. max.

- Note 1:** The maximum allowable power dissipation is a function of ambient temperature, the maximum allowable junction temperature and the thermal resistance from junction to air (i.e., T_A , T_J , θ_{JA}). Exceeding the maximum allowable power dissipation will cause the device operating junction temperature to exceed the maximum $+125^{\circ}C$ rating. Sustained junction temperatures above $+125^{\circ}C$ can impact the device reliability.

DSC61XXB

2.0 PIN DESCRIPTIONS

The DSC61xxB is a highly configurable device and can be factory programmed in many different ways to meet the customer's needs. Microchip's ClockWorks® Configurator <http://clockworks.microchip.com/Timing/> must be used to choose the necessary options, create the final part number, data sheet, and order samples. The descriptions of the pins are listed in [Table 2-1](#).

TABLE 2-1: DSC61XXB PIN FUNCTION TABLE

Pin Number	Pin Name	Description
1 (Note 1)	OE	Output Enable: H = Active, L = Disabled (High Impedance).
	$\overline{\text{STDBY}}$	Standby: H = Device is active, L = Device is in standby (Low Power Mode).
	FS	Frequency Select: H = Output Frequency 1, L = Output Frequency 2.
2	GND	Ground.
3	Output	Oscillator clock output.
4	VDD	Power supply: 1.71V to 3.63V.

Note 1: DSC610xB/1xB/3xB has a 300 k Ω internal pull-up resistor on pin 1. DSC614xB/5xB/7xB has no internal pull-up resistor on pin 1 and needs an external pull-up or to be driven by another chip.

An explanation of the different options listed in [Table 2-1](#) follows.

2.1 Pin 1

This is a control pin and may be configured to fulfill one of three different functions. If not actively driven, a 10 k Ω pull-up resistor is recommended.

2.1.1 OUTPUT ENABLE (OE)

Pin 1 may be configured as OE. Oscillator output may be turned on and off according to the state of this pin.

2.1.2 $\overline{\text{STDBY}}$

Pin 1 may be configured as Standby. When the pin is low, both output buffer and PLL will be off and the device will enter a low power mode.

2.1.3 FREQUENCY SELECT (FS)

Pin 1 may be configured as FS. The output may be set to one of two pre-programmed frequencies. The output clock frequencies can only be set to either kHz or MHz. A combination of kHz and MHz cannot be set.

2.2 Pins 2 through 4

Pins 2 and 4 are the supply terminals, GND and VDD respectively. Pin 3 is the clock output that can be selected to have Low, Standard, or High drive strength setting using the [ClockWorks® Configurator](#) to customize your device on the Microchip website.

2.3 Output Buffer Options

The DSC61xx family is available with a number of output driver configurations.

The low-drive (61x3), standard-drive (61x1), and high-drive (61x2) deliver respective output currents of greater than 1 mA, 3 mA, and 6 mA at 20%/80% of the supply voltage. For heavy loads of 15 pF or higher, the high-drive option is recommended.

3.0 DIAGRAMS

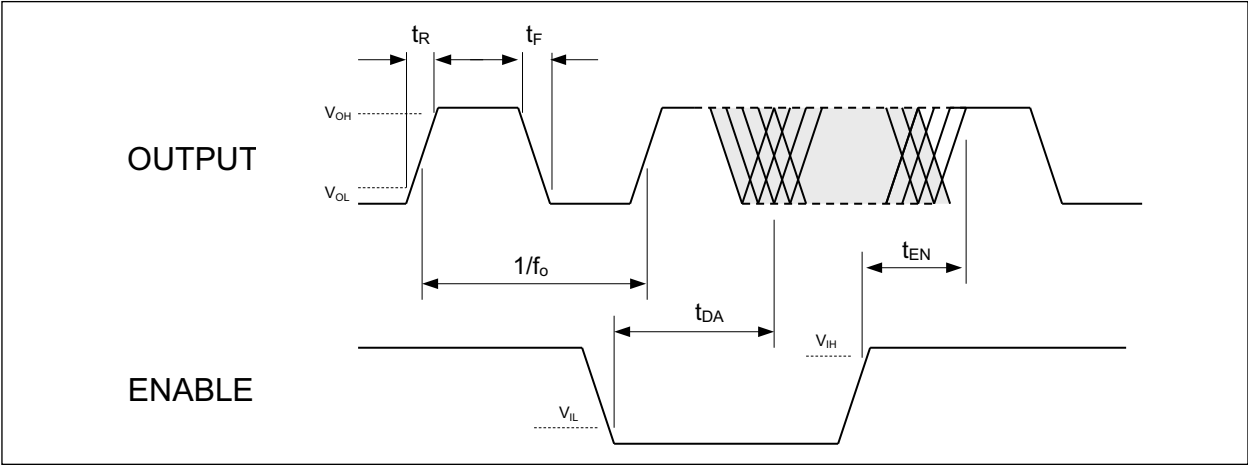


FIGURE 3-1: Output Waveform.

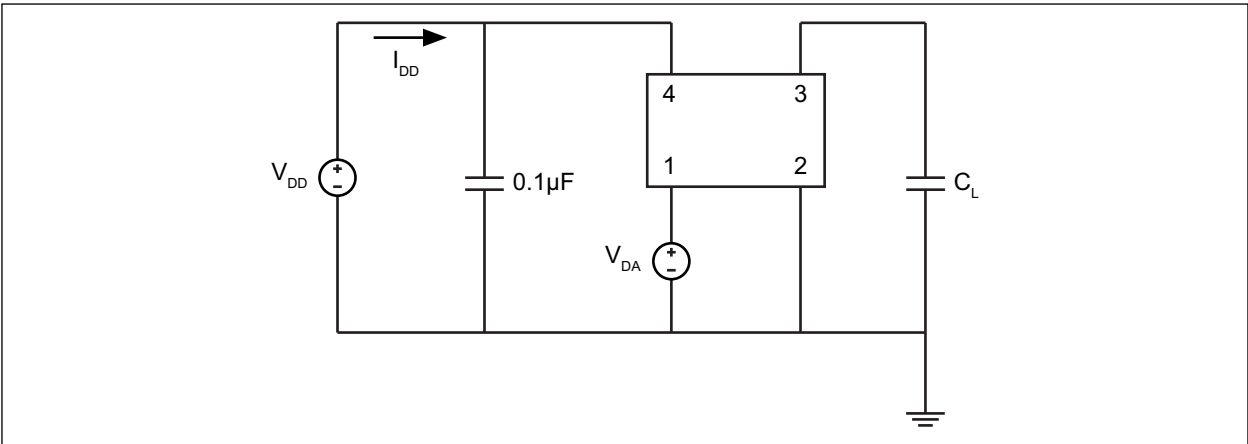


FIGURE 3-2: Test Circuit.

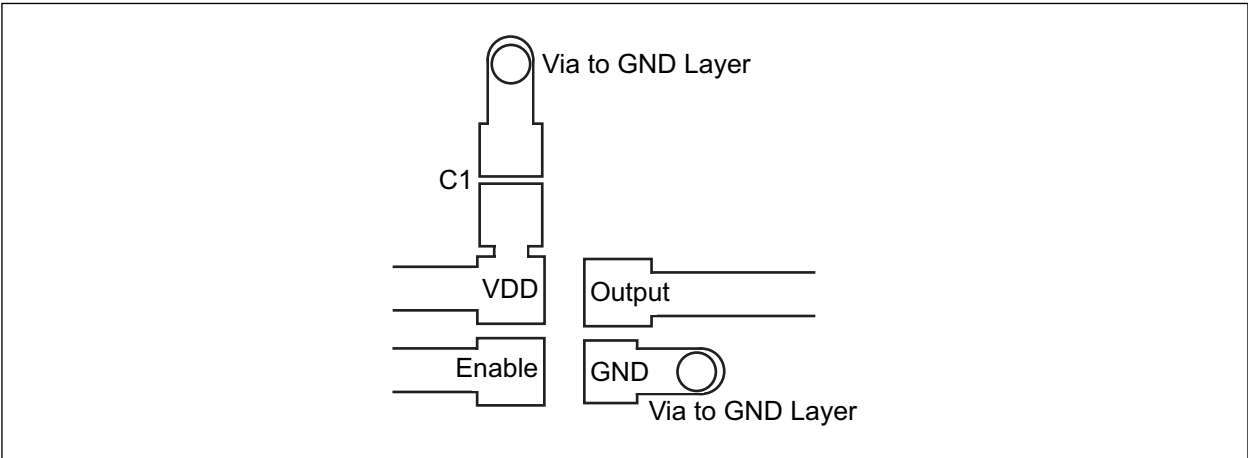


FIGURE 3-3: Recommended Board Layout.

4.0 SOLDER REFLOW PROFILE

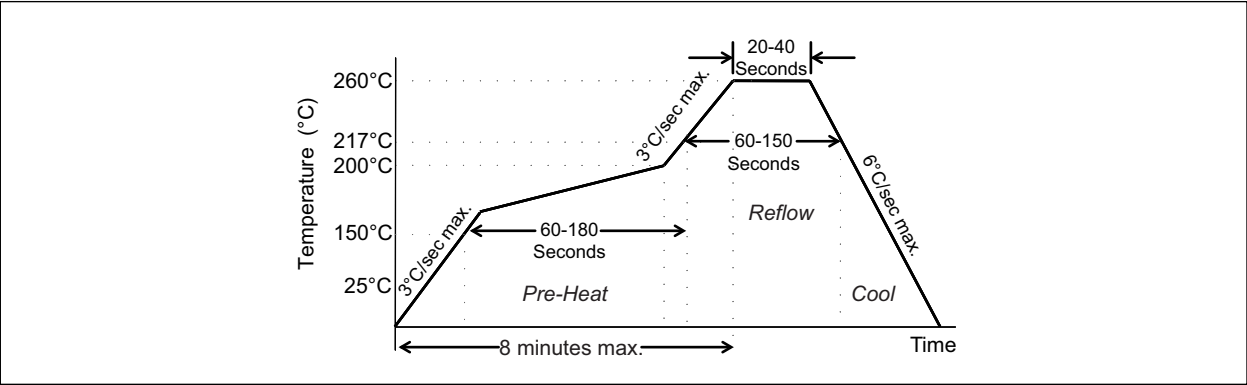


FIGURE 4-1: Solder Reflow Profile.

MSL 1 @ 260°C refer to JSTD-020C	
Ramp-Up Rate (200°C to Peak Temp)	3°C/sec. max.
Preheat Time 150°C to 200°C	60 to 180 sec.
Time maintained above 217°C	60 to 150 sec.
Peak Temperature	255°C to 260°C
Time within 5°C of actual Peak	20 to 40 sec.
Ramp-Down Rate	6°C/sec. max.
Time 25°C to Peak Temperature	8 minutes max.

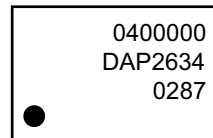
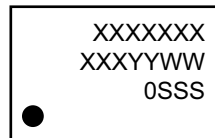
5.0 PACKAGING INFORMATION

5.1 Package Marking Information

4-Lead

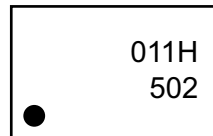
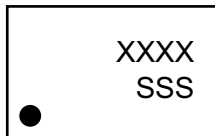
7.0mm x 5.0mm VDFN*
5.0mm x 3.2mm VDFN*
3.2mm x 2.5mm VDFN*
2.5mm x 2.0mm VLGA*

Example



4-Lead VFLGA*
2.0mm x 1.6mm
1.6mm x 1.2mm

Example



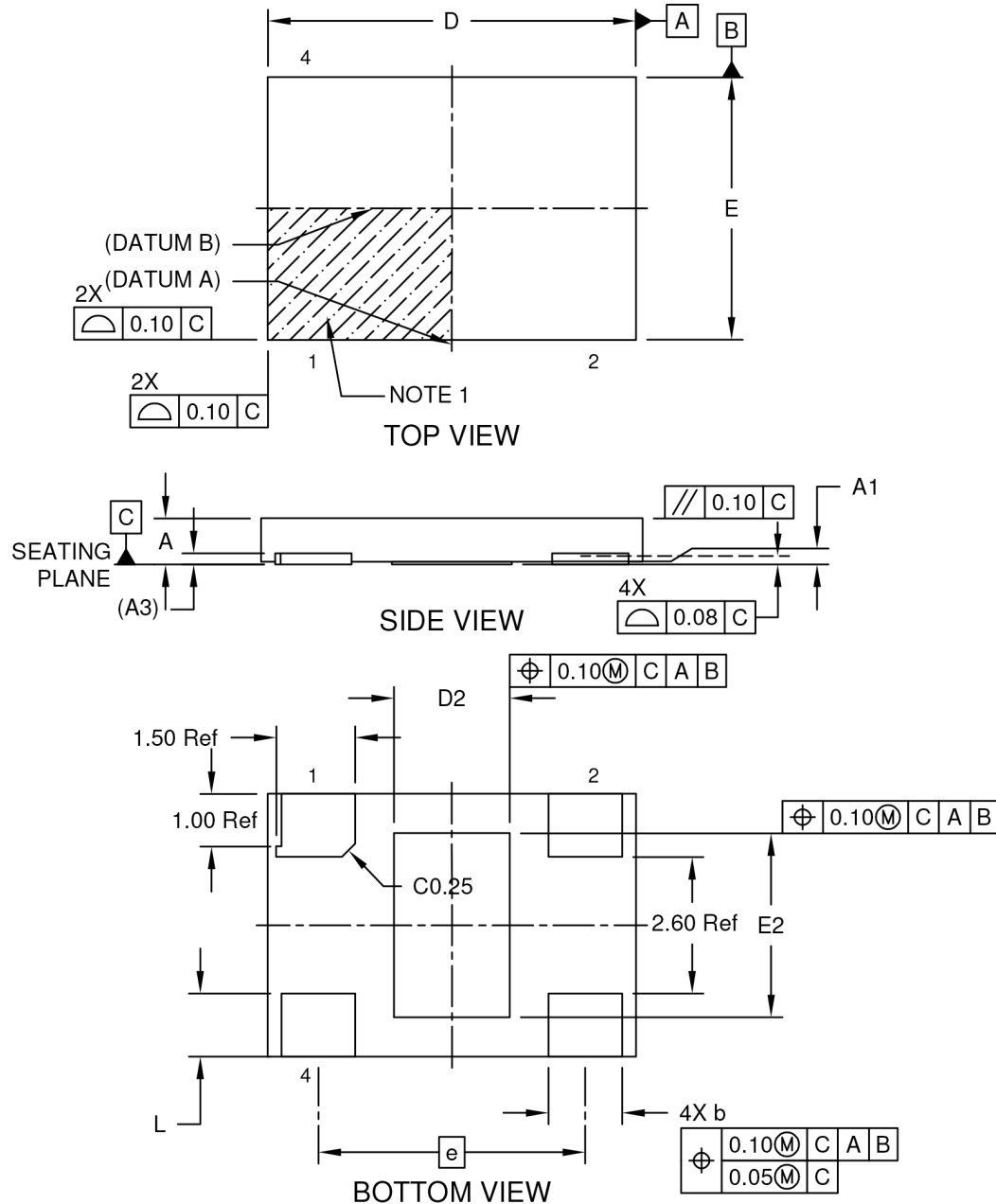
Legend:	XX...X	Product code or customer-specific information
	Y	Year code (last digit of calendar year)
	YY	Year code (last 2 digits of calendar year)
	WW	Week code (week of January 1 is week '01')
	SSS	Alphanumeric traceability code
	(e3)	Pb-free JEDEC® designator for Matte Tin (Sn)
	*	This package is Pb-free. The Pb-free JEDEC designator ((e3)) can be found on the outer packaging for this package.
	•, ▲, ▼	Pin one index is identified by a dot, delta up, or delta down (triangle mark).
Note:	In the event the full Microchip part number cannot be marked on one line, it will be carried over to the next line, thus limiting the number of available characters for customer-specific information. Package may or may not include the corporate logo.	
	Underbar (_) and/or Overbar (¯) symbol may not be to scale.	

Note: Devices may not include a top-line frequency marking. Product identity and output frequency are defined by the ordering code and accompanying documentation. Devices without a frequency marking remain fully compliant with all applicable data sheet specifications.

DSC61XXB

4-Lead Very Thin Dual Flatpack, No Lead Package (JZA) - 7x5x0.9 mm Body [VDFN] With 2.2x3.5 mm Exposed Pad

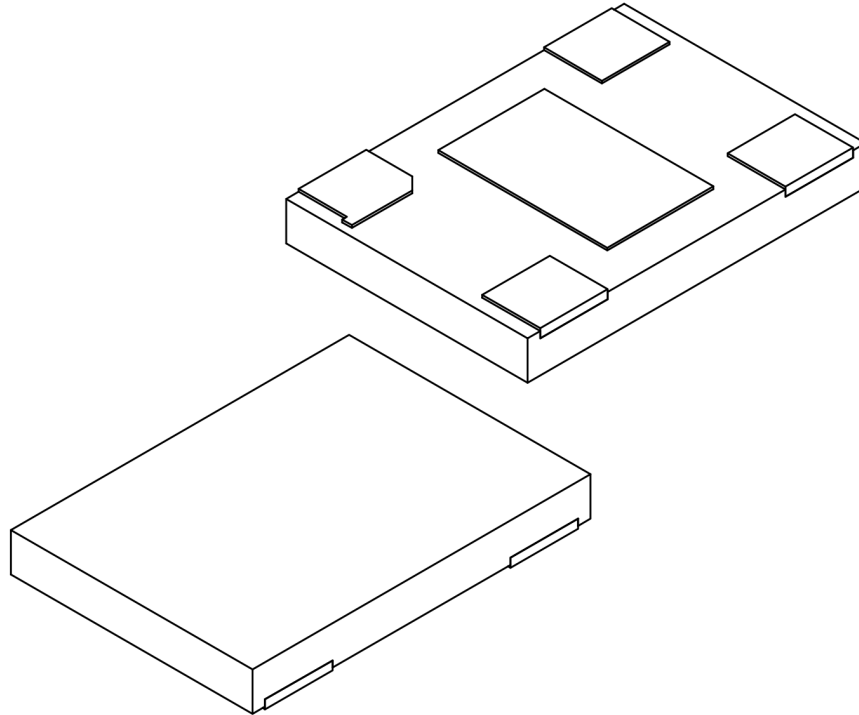
Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



Microchip Technology Drawing C04-1025 Rev A Sheet 1 of 2

4-Lead Very Thin Dual Flatpack, No Lead Package (JZA) - 7x5x0.9 mm Body [VDFN] With 2.2x3.5 mm Exposed Pad

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Number of Terminals	N	004		
Pitch	e	5.08 Ref		
Overall Height	A	0.80	0.85	0.90
Standoff	A1	0.00	-	0.05
Terminal Thickness	A3	0.203 Ref		
Overall Length	D	6.90	7.00	7.10
Exposed Pad Length	D2	2.10	2.20	2.30
Overall Width	E	4.90	5.00	5.10
Exposed Pad Width	E2	3.40	3.50	3.60
Terminal Width	b	1.35	1.40	1.45
Terminal Length	L	1.10	1.20	1.30

Notes:

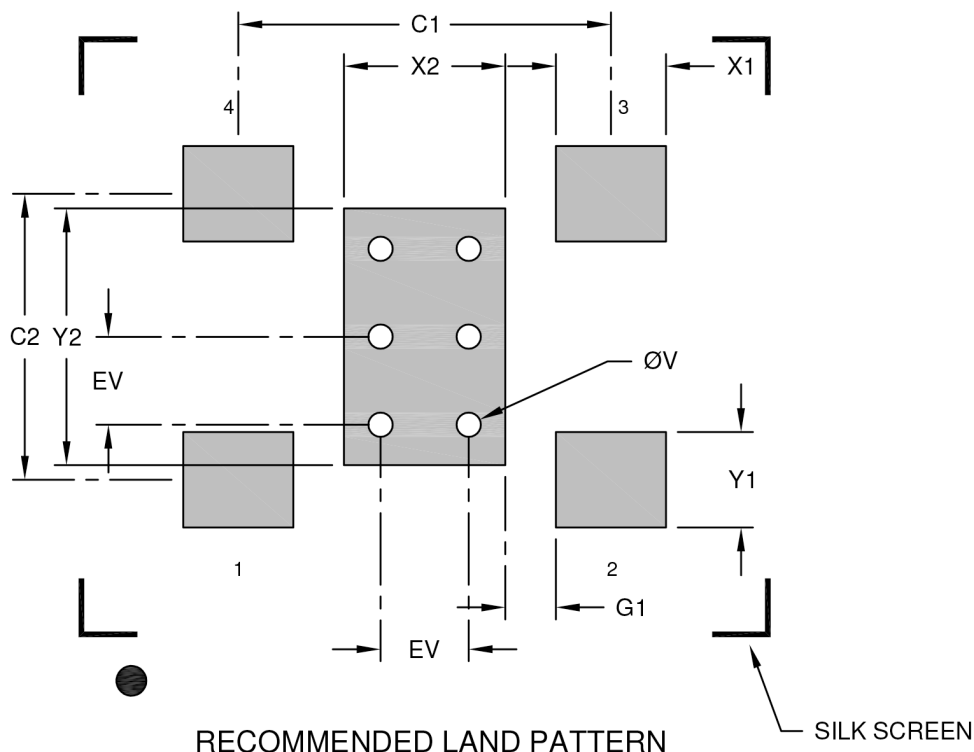
- Pin 1 visual index feature may vary, but must be located within the pin 1 area.
- Package is saw singulated
- Dimensioning and tolerancing per ASME Y14.5M
 - BSC: Basic Dimension. Theoretically exact value shown without tolerances.
 - REF: Reference Dimension, usually without tolerance, for information purposes only.

Microchip Technology Drawing C04-1025 Rev A Sheet 2 of 2

DSC61XXB

4-Lead Very Thin Dual Flatpack, No Lead Package [JZA] - 7x5x0.9 mm Body [VDFN] With 2.2x3.5 mm Exposed Pad

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



RECOMMENDED LAND PATTERN

Dimension	Units	MILLIMETERS		
		MIN	NOM	MAX
Optional Center Pad Width	X2			2.30
Optional Center Pad Length	Y2			3.60
Contact Pad Spacing	C1		5.08	
Contact Pad Spacing	C2		3.90	
Contact Pad Width (Xnn)	X1			1.50
Contact Pad Length (Xnn)	Y1			1.30
Contact Pad to Center Pad (Xnn)	G1	0.69		
Thermal Via Diameter	V		0.33	
Thermal Via Pitch	EV		1.20	

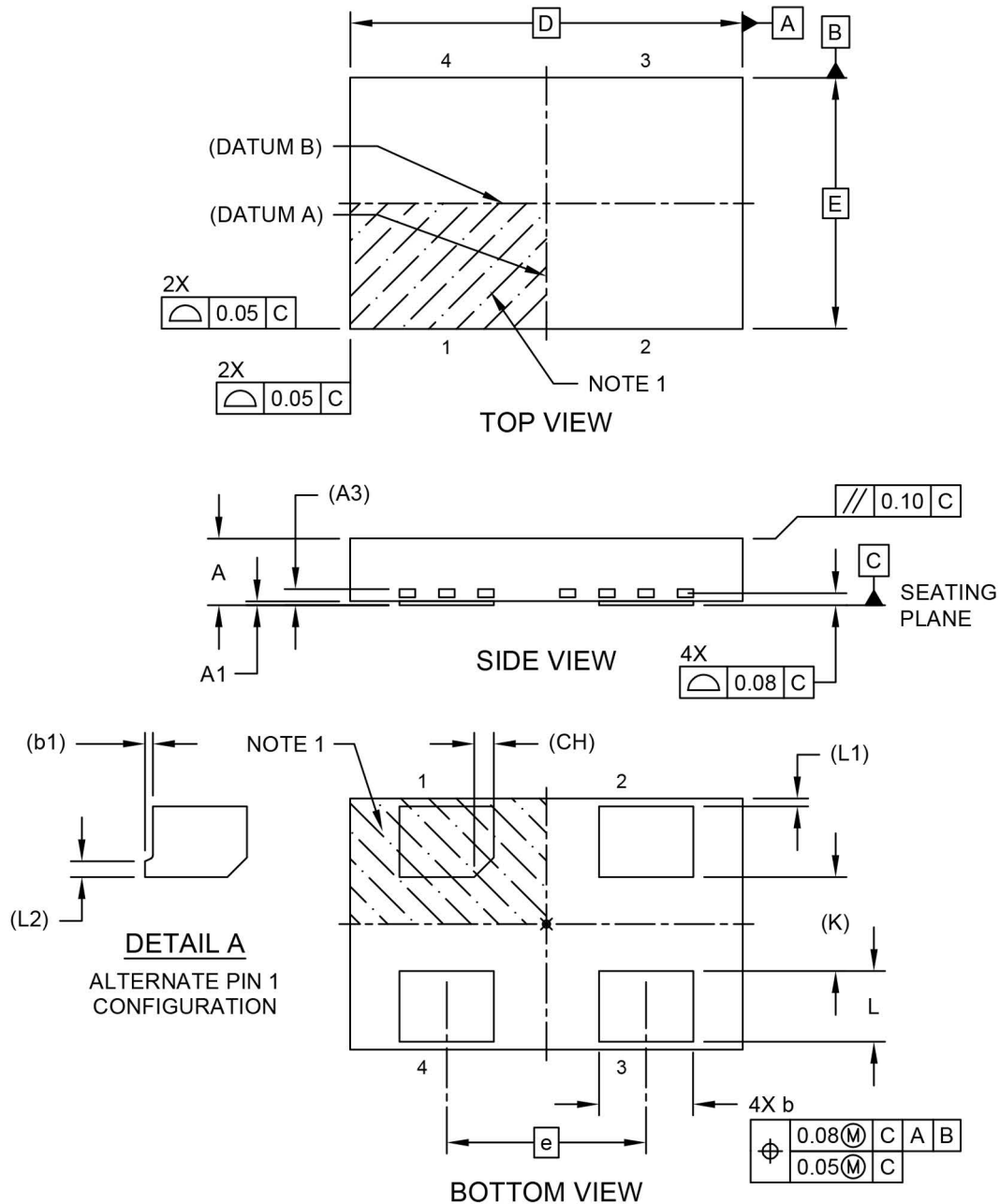
Notes:

1. Dimensioning and tolerancing per ASME Y14.5M
BSC: Basic Dimension. Theoretically exact value shown without tolerances.
2. For best soldering results, thermal vias, if used, should be filled or tented to avoid solder loss during reflow process

Microchip Technology Drawing C04-3025 Rev A

4-Lead Very Thin Plastic Dual Flat, No Lead Package (H6A) - 5x3.2 mm Body [VDFN]

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>

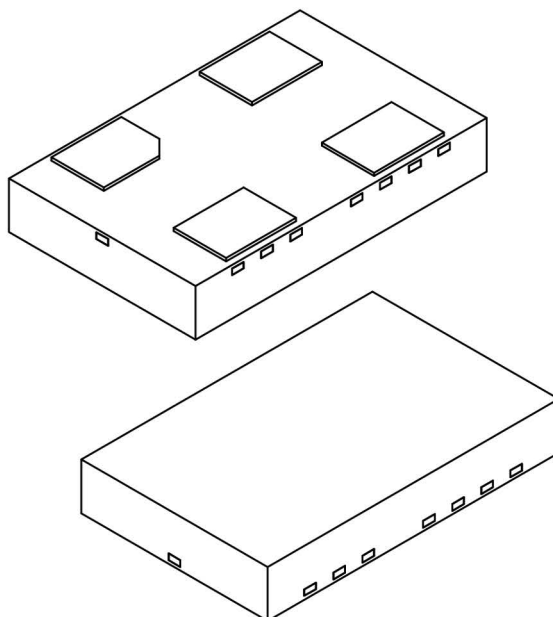


Microchip Technology Drawing C04-1008 Rev A Sheet 1 of 2

DSC61XXB

4-Lead Very Thin Plastic Dual Flat, No Lead Package (H6A) - 5x3.2 mm Body [VDFN]

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Number of Terminals	N	4		
Pitch	e	2.54 BSC		
Overall Height	A	0.80	0.85	0.90
Standoff	A1	0.00	0.02	0.05
Terminal Thickness	A3	0.20 REF		
Overall Length	D	5.00 BSC		
Overall Width	E	3.20 BSC		
Terminal Width	b	1.15	1.20	1.25
Terminal 1 Tab	b1	0.10 REF		
Terminal Length	L	0.80	0.90	1.00
Terminal Pull Back	L1	0.10 REF		
Terminal 1 Tab	L2	0.20 REF		
Terminal 1 Chamfer	CH	0.25 REF		
Terminal Spacing	K	1.20 REF		

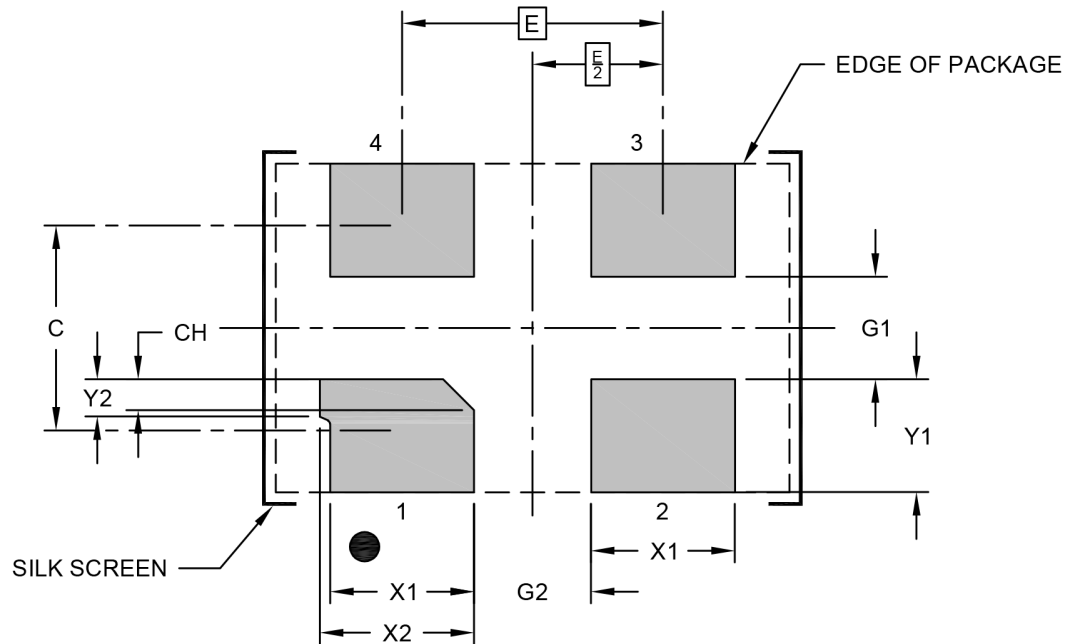
Notes:

- Pin 1 visual index feature may vary, but must be located within the hatched area.
- Package is saw singulated
- Dimensioning and tolerancing per ASME Y14.5M
BSC: Basic Dimension. Theoretically exact value shown without tolerances.
REF: Reference Dimension, usually without tolerance, for information purposes only.

Microchip Technology Drawing C04-1008 Rev A Sheet 2 of 2

4-Lead Very Thin Plastic Dual Flat, No Lead Package (H6A) - 5x3.2 mm Body [VDFN]

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



RECOMMENDED LAND PATTERN

Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Contact Pitch	E			
Contact Pad Spacing	C		2.00	
Contact Pad Width (X4)	X1			1.40
Contact Pad Width	X2			1.50
Contact Pad Length (X4)	Y1			1.10
Contact Pad Tab Length	Y2			0.36
Contact Pad to Center Pad (X2)	G1	1.00		
Contact Pad to Contact Pad (X2)	G2	1.14		
Terminal 1 Contact Pad Chamfer	CH		0.30	

Notes:

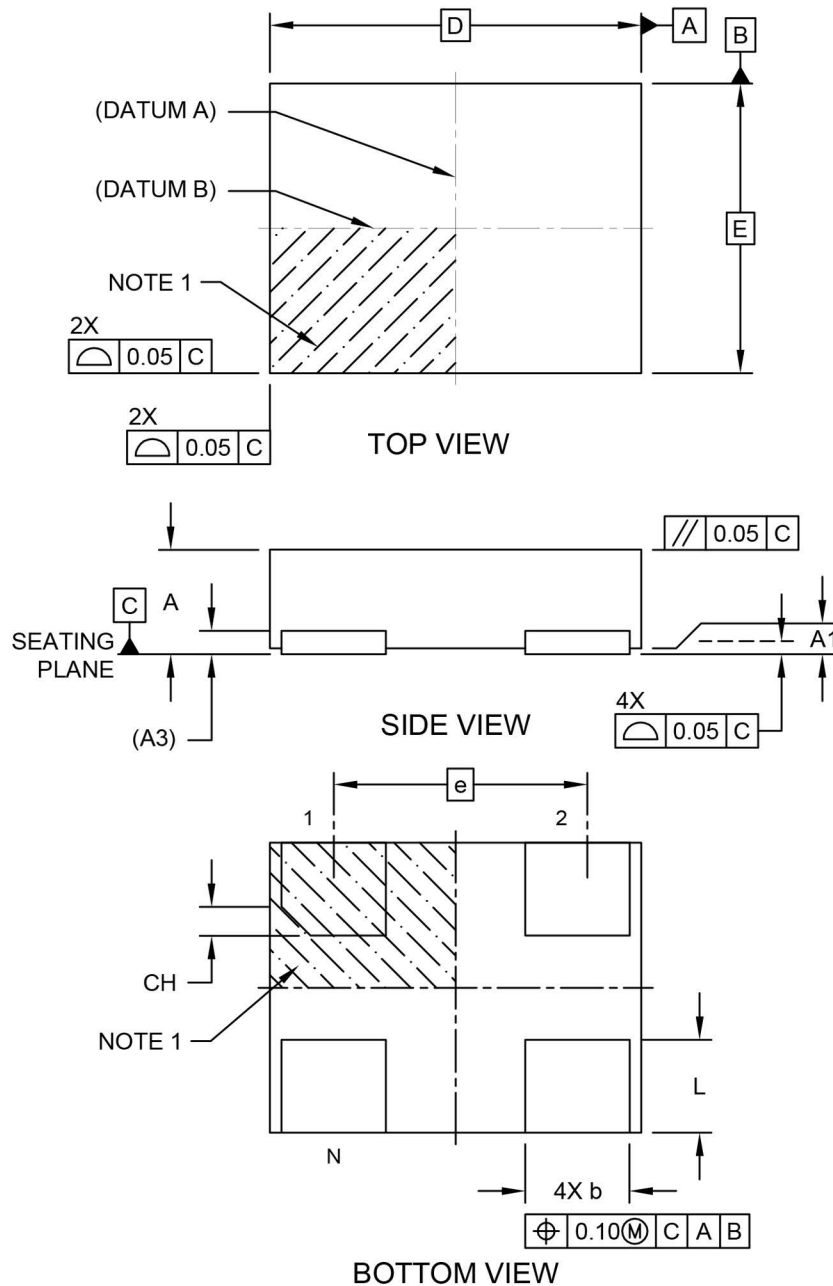
1. Dimensioning and tolerancing per ASME Y14.5M
BSC: Basic Dimension. Theoretically exact value shown without tolerances.

Microchip Technology Drawing C04-3008 Rev A

DSC61XXB

4-Lead Very Thin Plastic Dual Flatpack No-Lead (H4A) - 3.2x2.5 mm Body [VDFN]

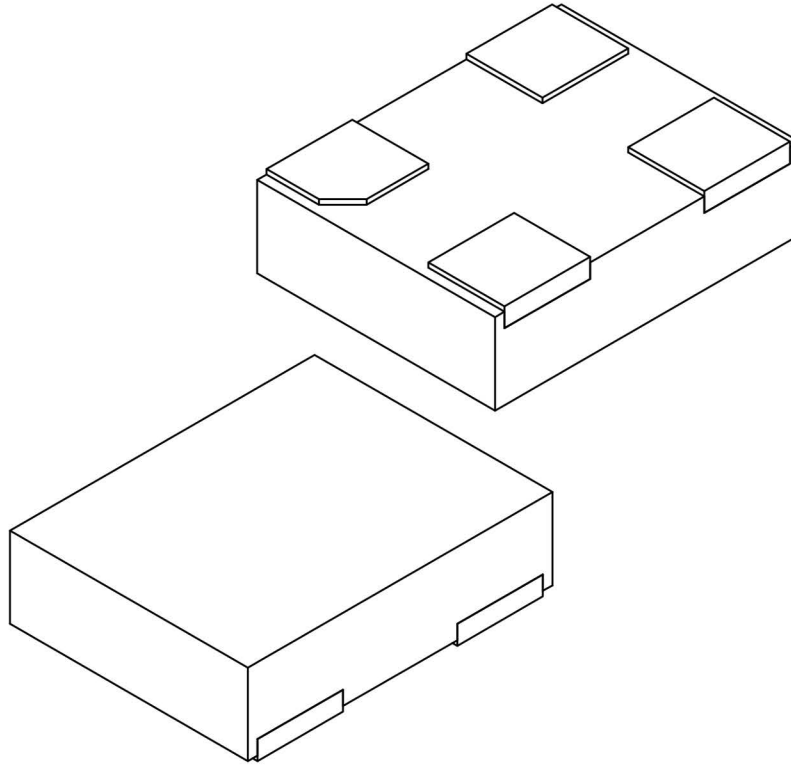
Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



Microchip Technology Drawing C04-1006 Rev B Sheet 1 of 2

4-Lead Very Thin Plastic Dual Flatpack No-Lead (H4A) - 3.2x2.5 mm Body [VDFN]

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



		Units	MILLIMETERS		
Dimension Limits			MIN	NOM	MAX
Number of Terminals	N		4		
Pitch	e		2.10 BSC		
Overall Height	A		0.80	0.85	0.90
Standoff	A1		0.00	0.02	0.05
Overall Length	D		3.20 BSC		
Overall Width	E		2.50 BSC		
Terminal Width	b		0.85	0.90	0.95
Terminal Length	L		0.70	0.80	0.90
Terminal 1 Index Chamfer	CH		0.25 REF		

Notes:

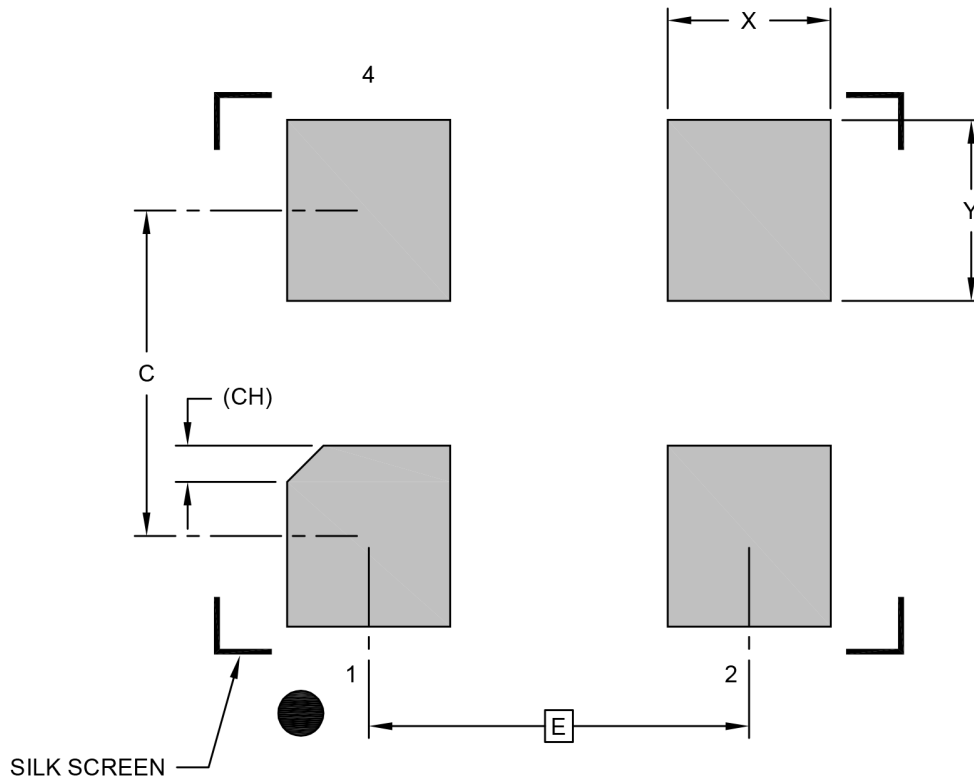
- Pin 1 visual index feature may vary, but must be located within the hatched area.
- Package is saw singulated
- Dimensioning and tolerancing per ASME Y14.5M
BSC: Basic Dimension. Theoretically exact value shown without tolerances.
REF: Reference Dimension, usually without tolerance, for information purposes only.

Microchip Technology Drawing C04-1006 Rev B Sheet 2 of 2

DSC61XXB

4-Lead Very Thin Plastic Dual Flatpack No-Lead (H4A) - 3.2x2.5 mm Body [VDFN]

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



RECOMMENDED LAND PATTERN

Dimension Limits	Units	MILLIMETERS		
		MIN	NOM	MAX
Contact Pitch	E	2.10 BSC		
Contact Pad Spacing	C		1.80	
Contact Pad Width (Xnn)	X			0.90
Contact Pad Length (Xnn)	Y			1.00
Contact Pad Length (Xnn)	CH	0.20 REF		

Notes:

1. Dimensioning and tolerancing per ASME Y14.5M

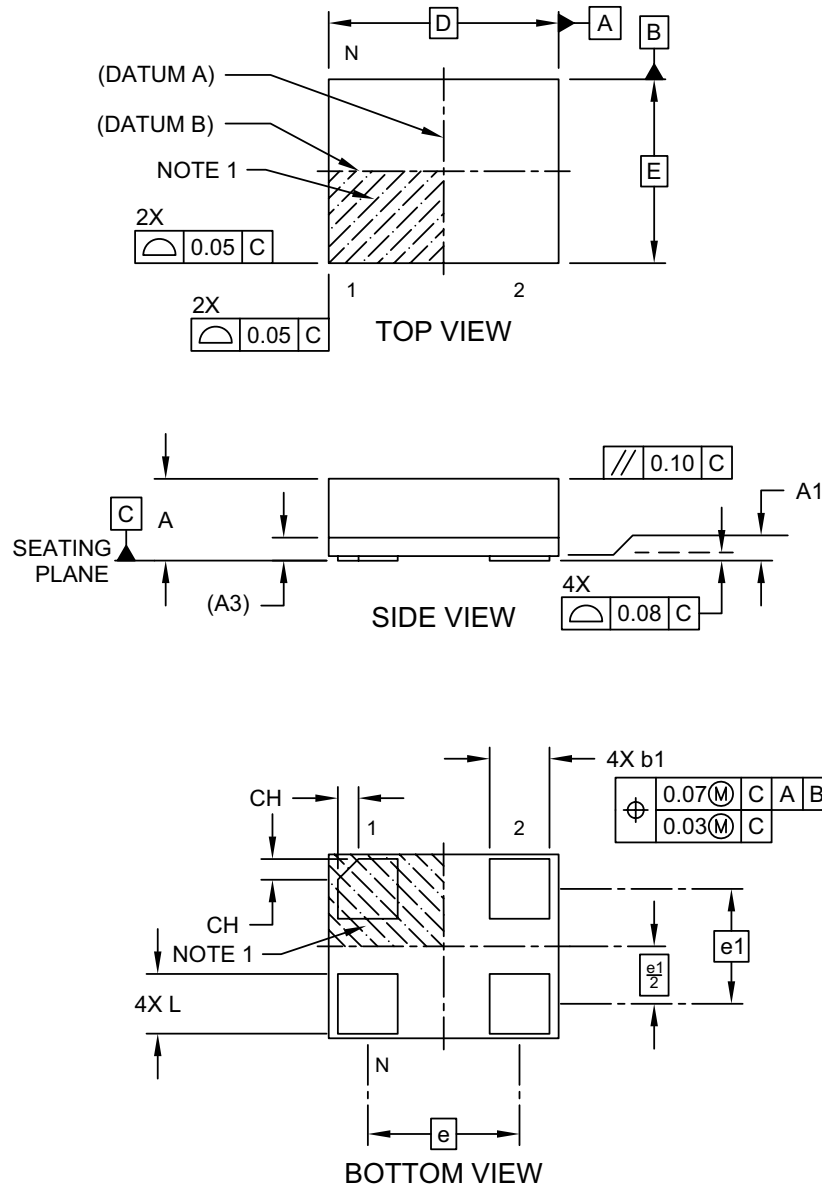
BSC: Basic Dimension. Theoretically exact value shown without tolerances.

REF: Reference Dimension, usually without tolerance, for information purposes only.

Microchip Technology Drawing C04-3006 Rev B

4-Lead Very Thin Land Grid Array (AUA) - 2.5x2.0 mm Body [VLGA]

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>

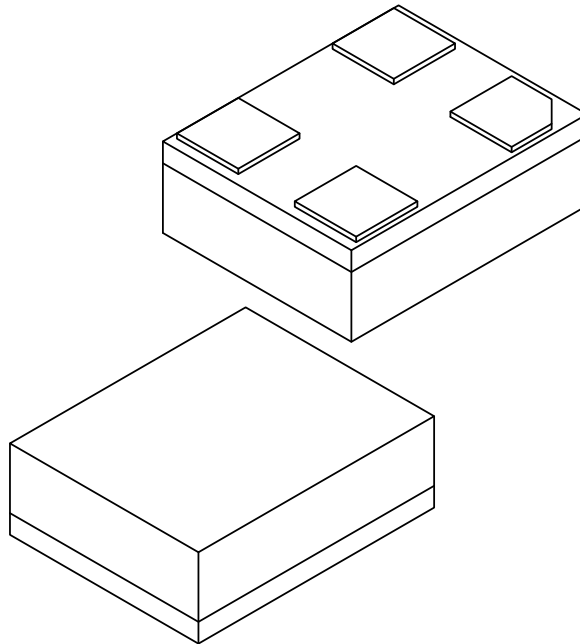


Microchip Technology Drawing C04-1202B Sheet 1 of 2

DSC61XXB

4-Lead Very Thin Land Grid Array (AUA) - 2.5x2.0 mm Body [VLGA]

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Number of Terminals	N	4		
Terminal Pitch	e	1.65 BSC		
Terminal Pitch	e1	1.25 BSC		
Overall Height	A	0.79	0.84	0.89
Standoff	A1	0.00	0.02	0.05
Substrate Thickness (with Terminals)	A3	0.20 REF		
Overall Length	D	2.50 BSC		
Overall Width	E	2.00 BSC		
Terminal Width	b1	0.60	0.65	0.70
Terminal Length	L	0.60	0.65	0.70
Terminal 1 Index Chamfer	CH	-	0.225	-

Notes:

1. Pin 1 visual index feature may vary, but must be located within the hatched area.
2. Package is saw singulated
3. Dimensioning and tolerancing per ASME Y14.5M

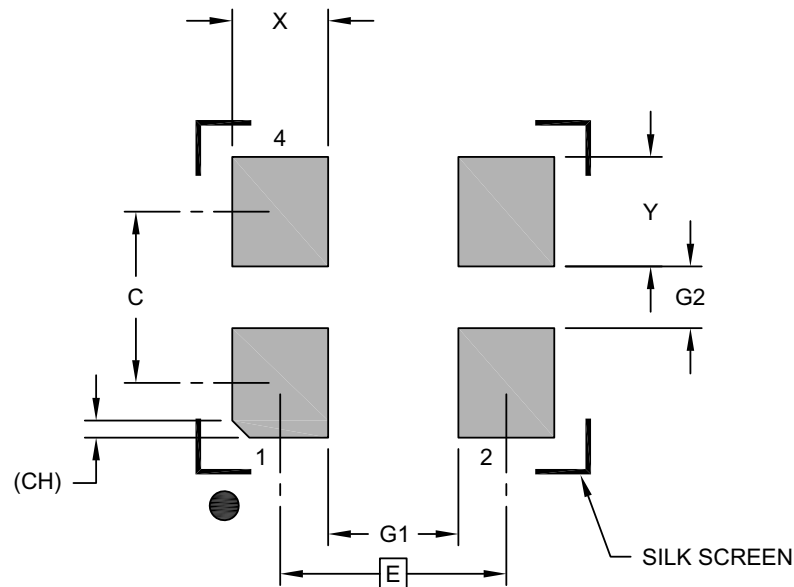
BSC: Basic Dimension. Theoretically exact value shown without tolerances.

REF: Reference Dimension, usually without tolerance, for information purposes only.

Microchip Technology Drawing C04-1202B Sheet 2 of 2

4-Lead Very Thin Land Grid Array (AUA) - 2.5x2.0 mm Body [VLGA]

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



RECOMMENDED LAND PATTERN

Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Contact Pitch	E	1.65 BSC		
Contact Spacing	C		1.25	
Contact Width (X4)	X			0.70
Contact Pad Length (X4)	Y			0.80
Space Between Contacts (X2)	G1	0.95		
Space Between Contacts (X2)	G2	0.45		
Contact 1 Index Chamfer	CH	0.13 X 45° REF		

Notes:

1. Dimensioning and tolerancing per ASME Y14.5M

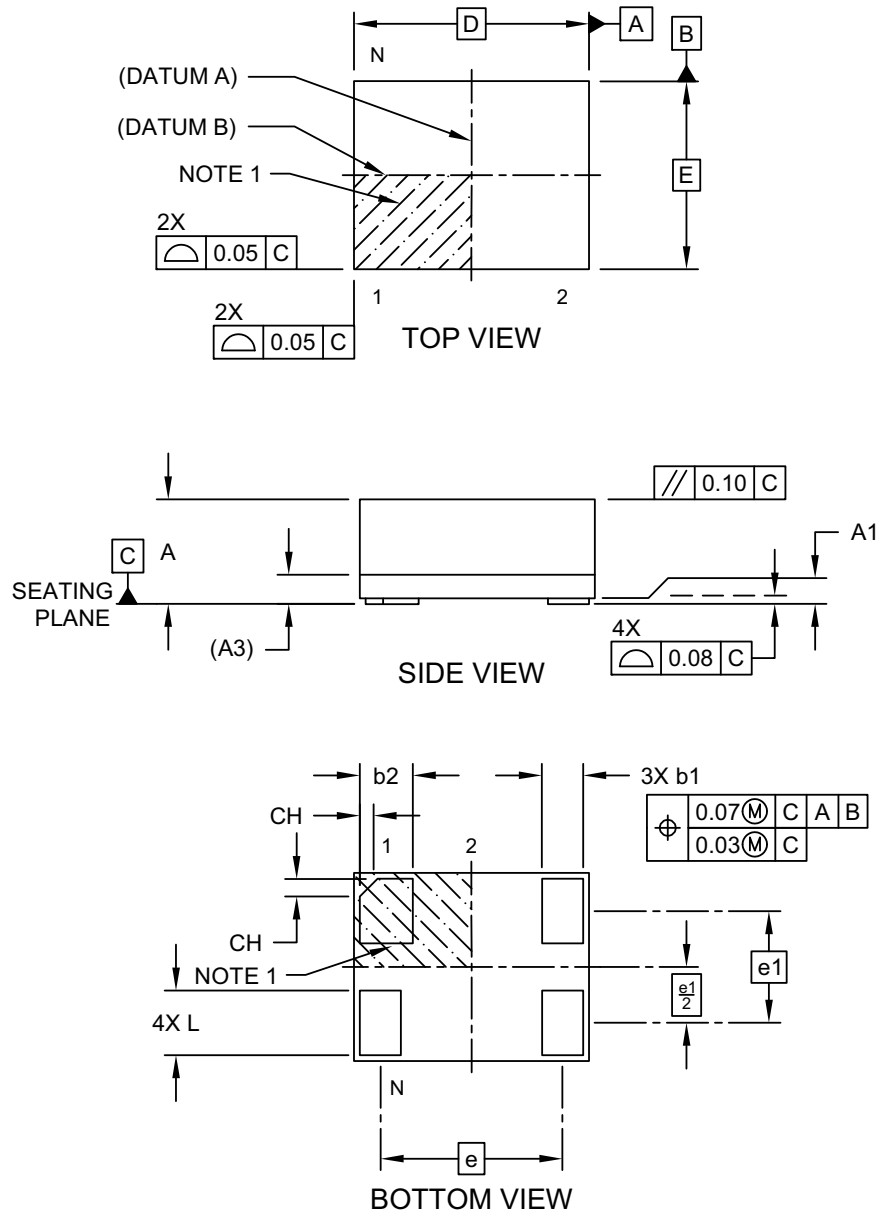
BSC: Basic Dimension. Theoretically exact value shown without tolerances.

Microchip Technology Drawing C04-3202B

DSC61XXB

4-Lead Very Thin Fine Pitch Land Grid Array (ASA) - 2.0x1.6 mm Body [VFLGA]

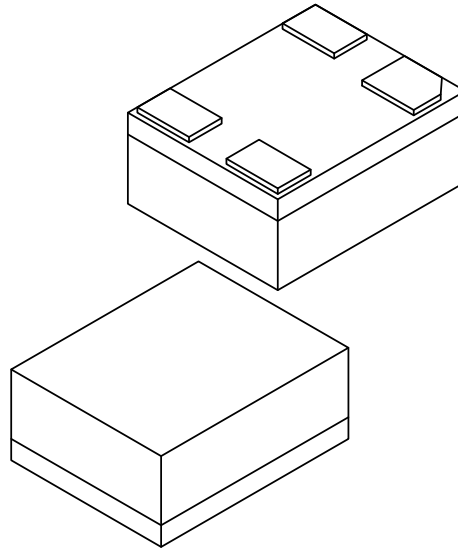
Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



Microchip Technology Drawing C04-1200 Rev D Sheet 1 of 2

4-Lead Very Thin Fine Pitch Land Grid Array (ASA) - 2.0x1.6 mm Body [VFLGA]

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Number of Terminals	N	4		
Terminal Pitch	e	1.55 BSC		
Terminal Pitch	e1	0.95 BSC		
Overall Height	A	0.79	0.84	0.89
Standoff	A1	0.00	0.02	0.05
Substrate Thickness (with Terminals)	A3	0.20 REF		
Overall Length	D	2.00 BSC		
Overall Width	E	1.60 BSC		
Terminal Width	b1	0.30	0.35	0.40
Terminal Width	b2	0.40	0.45	0.50
Terminal Length	L	0.50	0.55	0.60
Terminal 1 Index Chamfer	CH	-	0.15	-

Notes:

- Pin 1 visual index feature may vary, but must be located within the hatched area.
- Package is saw singulated
- Dimensioning and tolerancing per ASME Y14.5M

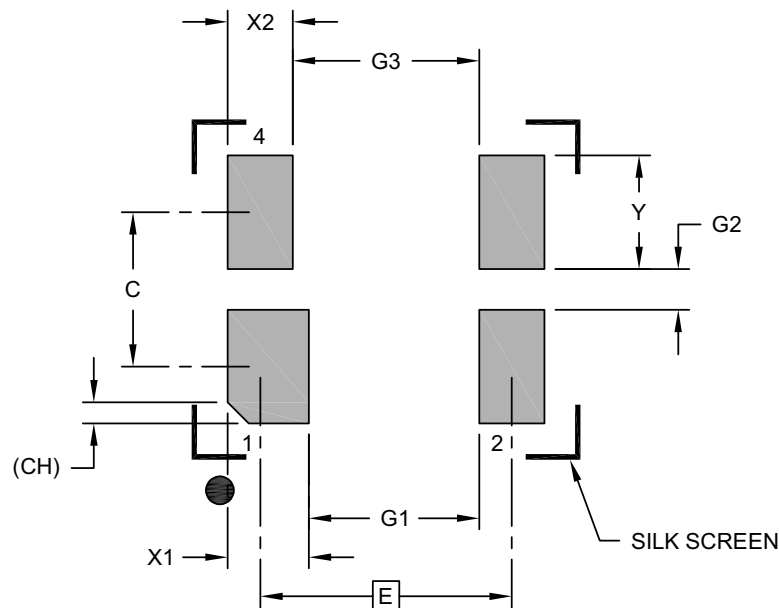
BSC: Basic Dimension. Theoretically exact value shown without tolerances.

REF: Reference Dimension, usually without tolerance, for information purposes only.

Microchip Technology Drawing C04-1200 Rev D Sheet 2 of 2

4-Lead Very Thin Fine Pitch Land Grid Array (ASA) - 2.0x1.6 mm Body [VFLGA]

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



RECOMMENDED LAND PATTERN

Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Contact Pitch	E	1.55 BSC		
Contact Spacing	C		0.95	
Contact Width	X1			0.50
Contact Width (X3)	X2			0.40
Contact Pad Length (X4)	Y			0.70
Space Between Contacts	G1	1.05		
Space Between Contacts (X2)	G2	0.25		
Space Between Contacts	G3	1.15		
Contact 1 Index Chamfer	CH	0.13 X 45° REF		

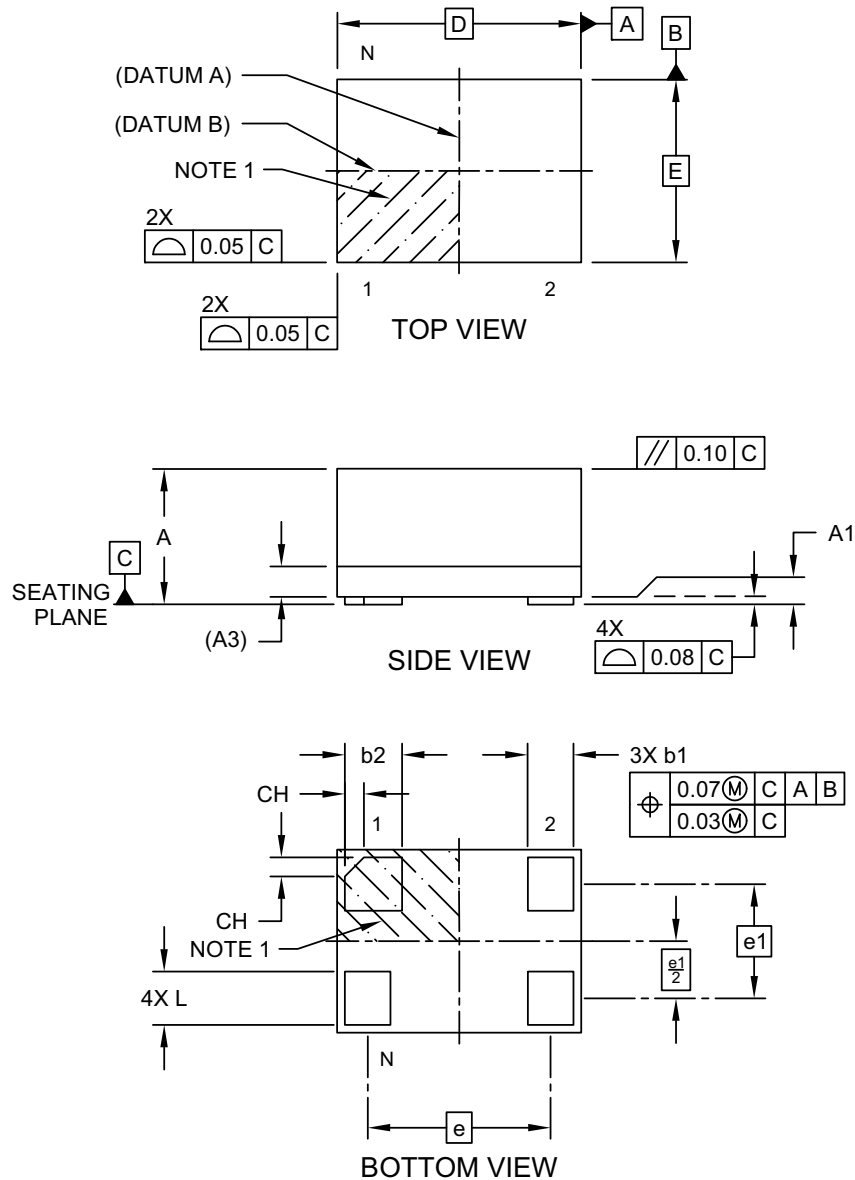
Notes:

- Dimensioning and tolerancing per ASME Y14.5M
BSC: Basic Dimension. Theoretically exact value shown without tolerances.
- The value in parenthesis, next to the item description is a unit multiplier.

Microchip Technology Drawing C04-3200 Rev D

4-Lead Very Thin Fine Pitch Land Grid Array (ARA) - 1.6x1.2 mm Body [VFLGA]

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>

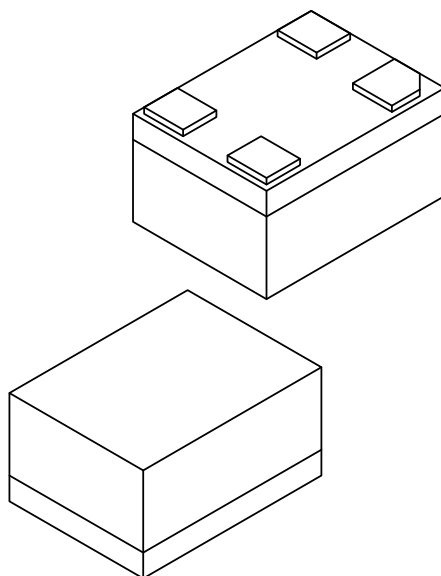


Microchip Technology Drawing C04-1199B Sheet 1 of 2

DSC61XXB

4-Lead Very Thin Fine Pitch Land Grid Array (ARA) - 1.6x1.2 mm Body [VFLGA]

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Number of Terminals	N	4		
Terminal Pitch	e	1.20 BSC		
Terminal Pitch	e1	0.75 BSC		
Overall Height	A	0.79	0.84	0.89
Standoff	A1	0.00	0.02	0.05
Substrate Thickness (with Terminals)	A3	0.20 REF		
Overall Length	D	1.60 BSC		
Overall Width	E	1.20 BSC		
Terminal Width	b1	0.25	0.30	0.35
Terminal Width	b2	0.325	0.375	0.425
Terminal Length	L	0.30	0.35	0.40
Terminal 1 Index Chamfer	CH	-	0.125	-

Notes:

1. Pin 1 visual index feature may vary, but must be located within the hatched area.
2. Package is saw singulated
3. Dimensioning and tolerancing per ASME Y14.5M

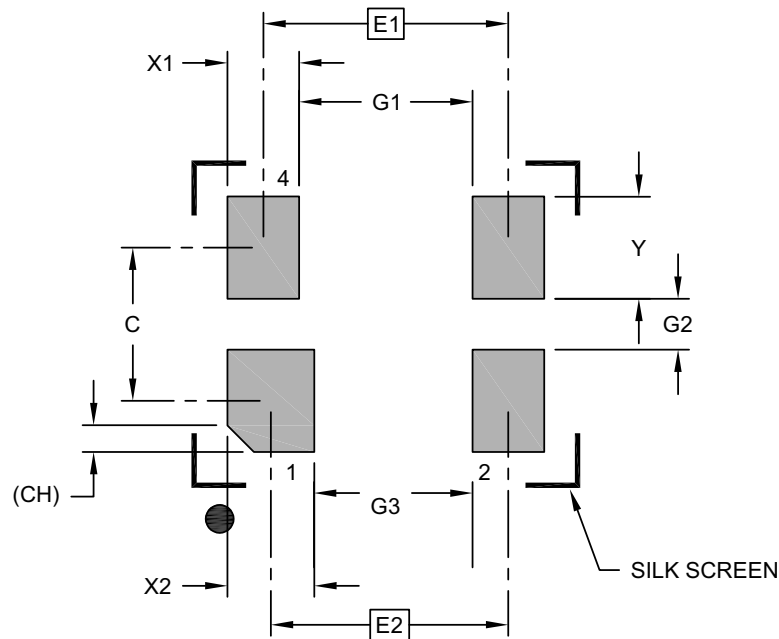
BSC: Basic Dimension. Theoretically exact value shown without tolerances.

REF: Reference Dimension, usually without tolerance, for information purposes only.

Microchip Technology Drawing C04-1199B Sheet 2 of 2

4-Lead Very Thin Fine Pitch Land Grid Array (ARA) - 1.6x1.2 mm Body [VFLGA]

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



RECOMMENDED LAND PATTERN

Dimension Limits	Units	MILLIMETERS		
		MIN	NOM	MAX
Contact Pitch	E1	1.20 BSC		
Contact Pitch	E2	1.16 BSC		
Contact Spacing	C	0.75		
Contact Width (X3)	X1			0.35
Contact Width	X2			0.43
Contact Pad Length (X4)	Y			0.50
Space Between Contacts	G1	0.85		
Space Between Contacts (X2)	G2	0.25		
Space Between Contacts	G3	0.77		
Contact 1 Index Chamfer	CH	0.13 X 45° REF		

Notes:

1. Dimensioning and tolerancing per ASME Y14.5M
BSC: Basic Dimension. Theoretically exact value shown without tolerances.
2. The value in parenthesis, next to the item description is a unit multiplier.

Microchip Technology Drawing C04-3199B

DSC61XXB

NOTES:

APPENDIX A: REVISION HISTORY

Revision A (January 2019)

- Initial creation of DSC61xxB Microchip data sheet DS20006155A.

Revision B (December 2021)

- Replaced all three package drawings with the most current versions.

Revision C (November 2022)

- Added the 7.0 mm x 5.0 mm VDFN, 5.0 mm x 3.2 mm VDFN, and 3.2 mm x 2.5 mm VDFN package options throughout the document.
- Updated the previously existing package outline drawings to their most current versions.

Revision D (March 2026)

- Added a note about bulk quantities to the [Product Identification System](#) section.

Revision E (June 2026)

- Updated [Features](#) and [Applications](#).
- Added Low Drive strength values to the [Electrical Characteristics](#) table.
- Updated both **Section 2.2 “Pins 2 through 4”** and **Section 2.3 “Output Buffer Options”**.
- Updated the [Package Marking Information](#) and included a note regarding top-line frequency marking.
- Added Low Drive option to the [Product Identification System](#) section.

DSC61XXB

NOTES:

PRODUCT IDENTIFICATION SYSTEM

To order or obtain information, e.g., on pricing or delivery, contact your local Microchip representative or sales office.

PART NO.	X	X	X	X	X	X -	XXX.XXXX	X
Device	Pin 1 Definition	Output Drive Strength	Package	Temperature Range	Frequency Stability	Revision	Frequency	Media Type
Device:	DSC61:	Ultra-Small, Ultra-Low Power MEMS Oscillator						
Pin Definition:	Selection	Pin 1	Internal Pull-Up Register					
	0	OE	Pull-up					
	1	STDBY	Pull-up					
	2	FS	Pull-up					
	4	OE	None					
	5	STDBY	None					
	6	FS	None					
Output Drive Strength:	1	Standard						
	2	High						
	3	Low						
Packages:	A	=	4-Lead 7.0 mm x 5.0 mm VDFN					
	B	=	4-Lead 5.0 mm x 3.2 mm VDFN					
	C	=	4-Lead 3.2 mm x 2.5 mm VDFN					
	J	=	4-Lead 2.5 mm x 2.0 mm VLGA					
	M	=	4-Lead 2.0 mm x 1.6 mm VLGA					
	H	=	4-Lead 1.6 mm x 1.2 mm VFLGA					
Temperature Range:	A	=	-40°C to +125°C (Automotive)					
	L	=	-40°C to +105°C (Extended Industrial)					
	I	=	-40°C to +85°C (Industrial)					
	E	=	-20°C to +70°C (Extended Commercial)					
Frequency Stability:	1	=	± 50 ppm					
	2	=	± 25 ppm					
	3	=	± 20 ppm					
Revision:	B	=	Revision B					
Frequency:	xxx.xxxx	=	User-Defined Frequency between 001.0000 MHz and 100.0000 MHz					
	xxxkxxx	=	User-Defined Frequency between 003.500 kHz and 999.999 kHz					
	xxxx	=	Frequency configuration code when pin 1 = FS. Configure the part online through ClockWorks					
Media Type:	<blank>	=	Bulk					
(Note 2)	T	=	1,000/Reel					
	B	=	3,000/Reel					

Examples:

a) DSC6112JI2B-100.0000:

Ultra-Small, Ultra-Low Power MEMS Oscillator, Pin 1 = STDBY with Internal Pull-Up, High Drive Strength, 4-Lead 2.5 mm x 2.0 mm VLGA, Industrial Temperature, ±25 ppm Stability, Revision B, 100 MHz Frequency, Bulk

b) DSC6101HE1B-016.0000T:

Ultra-Small, Ultra-Low Power MEMS Oscillator, Pin 1 = OE with Internal Pull-Up, Standard Drive Strength, 4-Lead 1.6 mm x 1.2 mm VFLGA, Extended Commercial Temperature, ±50 ppm Stability, Revision B, 16 MHz Frequency, 1,000/Reel

c) DSC6121MI2B-005QB:

Ultra-Small, Ultra-Low Power MEMS Oscillator, Pin 1 = Freq. Select with Internal Pull-Up, Standard Drive Strength, 4-Lead 2.0 mm x 1.6 mm VLGA, Industrial Temperature, ±25 ppm Stability, Revision B, Two Frequencies Configured through ClockWorks, 3,000/Reel

Note 1: Media Type identifier only appears in the catalog part number description. This identifier is used for ordering purposes and is not printed on the device package. Check with your Microchip Sales Office for package availability with different media options.

Note 1: Please visit Microchip ClockWorks® Configurator Website to configure the part number for customized frequency. <http://clockworks.microchip.com/timing/>.

2: On orders for bulk CPNs, product may be supplied in either cut tape (without a reel) or tube packaging, depending on availability. For Tape & Reel orders that are <1000 pieces, product may be supplied on cut tape (without a reel) depending on availability.

DSC61XXB

NOTES:

Microchip Information

Trademarks

The “Microchip” name and logo, the “M” logo, and other names, logos, and brands are registered and unregistered trademarks of Microchip Technology Incorporated or its affiliates and/or subsidiaries in the United States and/or other countries (“Microchip Trademarks”). Information regarding Microchip Trademarks can be found at <https://www.microchip.com/en-us/about/legal-information/microchip-trademarks>.

Legal Notice

This publication and the information herein may be used only with Microchip products, including to design, test, and integrate Microchip products with your application. Use of this information in any other manner violates these terms. Information regarding device applications is provided only for your convenience and may be superseded by updates. It is your responsibility to ensure that your application meets with your specifications. Contact your local Microchip sales office for additional support or, obtain additional support at www.microchip.com/en-us/support/design-help/client-support-services.

THIS INFORMATION IS PROVIDED BY MICROCHIP "AS IS". MICROCHIP MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WHETHER EXPRESS OR IMPLIED, WRITTEN OR ORAL, STATUTORY OR OTHERWISE, RELATED TO THE INFORMATION INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE, OR WARRANTIES RELATED TO ITS CONDITION, QUALITY, OR PERFORMANCE.

IN NO EVENT WILL MICROCHIP BE LIABLE FOR ANY INDIRECT, SPECIAL, PUNITIVE, INCIDENTAL, OR CONSEQUENTIAL LOSS, DAMAGE, COST, OR EXPENSE OF ANY KIND WHATSOEVER RELATED TO THE INFORMATION OR ITS USE, HOWEVER CAUSED, EVEN IF MICROCHIP HAS BEEN ADVISED OF THE POSSIBILITY OR THE DAMAGES ARE FORESEEABLE. TO THE FULLEST EXTENT ALLOWED BY LAW, MICROCHIP'S TOTAL LIABILITY ON ALL CLAIMS IN ANY WAY RELATED TO THE INFORMATION OR ITS USE WILL NOT EXCEED THE AMOUNT OF FEES, IF ANY, THAT YOU HAVE PAID DIRECTLY TO MICROCHIP FOR THE INFORMATION.

Use of Microchip devices in life support and/or safety applications is entirely at the buyer's risk, and the buyer agrees to defend, indemnify and hold harmless Microchip from any and all damages, claims, suits, or expenses resulting from such use. No licenses are conveyed, implicitly or otherwise, under any Microchip intellectual property rights unless otherwise stated.

Microchip Devices Code Protection Feature

Note the following details of the code protection feature on Microchip products:

- Microchip products meet the specifications contained in their particular Microchip Data Sheet.
- Microchip believes that its family of products is secure when used in the intended manner, within operating specifications, and under normal conditions.
- Microchip values and aggressively protects its intellectual property rights. Attempts to breach the code protection features of Microchip product is strictly prohibited and may violate the Digital Millennium Copyright Act.
- Neither Microchip nor any other semiconductor manufacturer can guarantee the security of its code. Code protection does not mean that we are guaranteeing the product is “unbreakable”. Code protection is constantly evolving. Microchip is committed to continuously improving the code protection features of our products.