

# Common Mode Choke



RoHS  
Compliant



## Electrical Characteristics:

Test Condition		
1kHz 10mA (ALC on)	L (1-4)	85μH ±25%
	L (2-3)	
T <sub>A</sub> = 25°C	DCR (1-4)	13mΩ (Max.)
	DCR (2-3)	
	IDC	12A (Max.)
HI-POT (Coil to Coil)		1,500V AC, 5mA 2sec.
Operating temperature	-25°C to +85°C	

## Material List

No.	Item	Material Description
1	Core	C5A T25 × 15 × 12C
2	Wire	Ø1mm UEFN/U (155°C)
3	Solder (Lead-free)	Sn99.3% / Cu0.7%
4	Vernish	T-4260 (a) / TX-111
5	Space	FR4 (thickness 2mm)
6	Glue	TH100A and TH100B

## Reliability Test

Test Item	Specifications	Test Method and Remarks
Operating Temperature Range	-55°C to +130°C	Including temperature rise due to self-generated heat.
Storage Condition	Ambient temperature : 0°C to 40°C Humidity : Below 70% RH	To maintain the solderability of terminal electrodes, care must be taken to control temperature and humidity in the storage area.
Moisture Sensitivity	Appearance : No abnormality No damage DCR change : Within ±5% Inductance change : Within ±5%	According to J-STD-020B level 3 Test condition : 60°C 60% RH Test duration : 40hrs Recovery : 1 to 2 hours of recovery under the standard condition after the removal from the test chamber.
Solderability	All termination shall exhibit a continuous solder coating free from defects for a minimum of 95% of the surface area of any individual lead.	According to J-STD-002B Steam aging category : 97°C 98% RH Steam aging duration : 8 hrs Solder : Lead-free solder Solder temperature : 260 ±5°C Dip time : 5 +0 / -0.5 s

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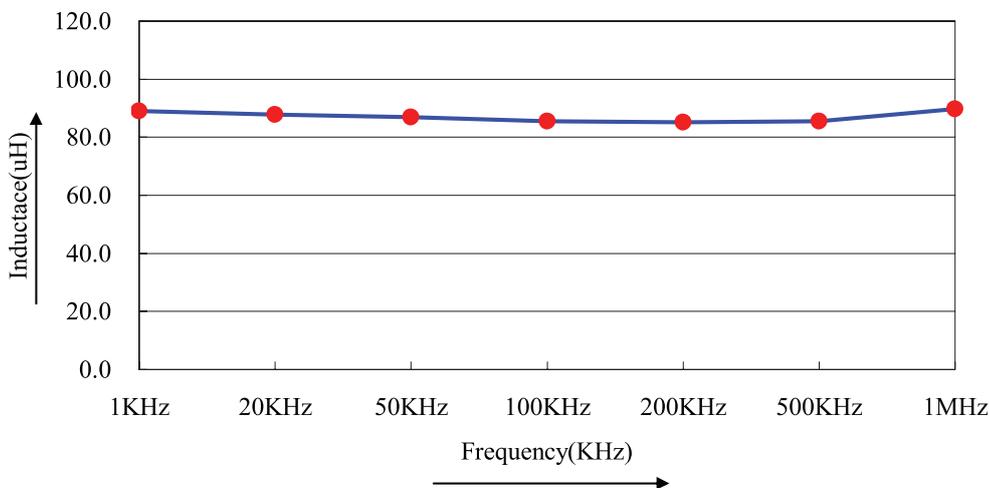
## Test Data for Mechanical:

Test Item	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
Specification	31 (Max.)	16 (Max.)	10 ±0.5	0 to 5	25.5 ±0.5	14 ±0.5	Ø1.06 (Ref.)
1	28.99	14.96	10.17	2.23	25.57	14.2	0.97
2	28.62	15	10.23	2.54	25.46	14.17	0.99
3	28.92	15.11	10.06	3.12	25.72	14.15	
4	28.72	14.91	10.14	2.25	25.64	14.23	0.97
5	29.07	14.97	10.15	2.13	25.4	14.06	0.98
Average	28.86	14.99	10.15	2.45	25.56	14.06	0.98

## Test Data for Electrical:

Test Item	L (1-4) $\mu$ H	L (2-3) $\mu$ H	DCR (1-4) m $\Omega$	DCR (2-3) m $\Omega$	HI-POT (Coil to Coil)
Condition	1kHz 10mA (ALC on)	1kHz 10mA (ALC on)	T <sub>A</sub> = 25°C	T <sub>A</sub> = 25°C	1,500V AC 5mA 2sec.
Specification	85 ±25%	85 ±25%	13 (Max.)		Pass
1	92.3	92.52	8.97	9.02	Pass
2	92.64	92.9	8.98	9.01	
3	91.72	91.4	9.11	8.99	
4	91.48	91.78	9.04	9.12	
5	92.56	92.7	9.01	8.99	
Average	92.14	92.26	9.02	9.03	Pass

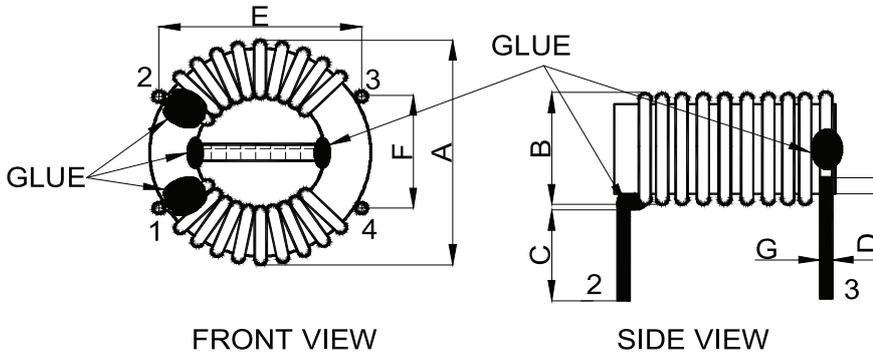
## Electric Characteristics:



# Common Mode Choke

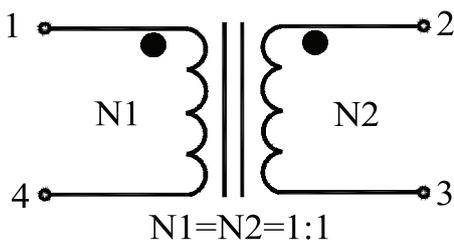


## Configurations and Dimensions:



A	31mm	(Max.)
B	16mm	
C	10 ±0.5mm	-
D	0 to 5mm	-
E	25.5 ±0.5mm	-
F	14 ±0.5mm	-
G	Ø1.06mm	(Ref.)

## Schematic Diagram:



### Note:

1. Wire UEFN/U (155°C) Ø1mm
2. N1 = N2 = 10TS (FIX) N1:C.W N2:C.CW

## Part Number Table

Description	Part Number
Choke, Common Mode, 85µH, 12A	MCT25X12X15C-850PU

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