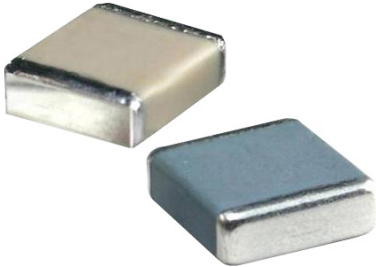


Multilayer Ceramic Chip Capacitors **multicomp** PRO

RoHS
Compliant



Electrical Characteristics

NP0

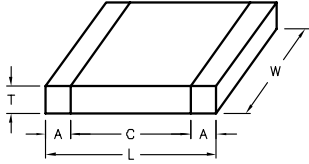
Characteristic	Requirement	Test Conditions
Operating Temperature Range	-55°C to +125°C	
Temperature Coefficient (TC)	C<10pF, ±150ppm/°C C=10pF, ±30ppm/°C	With respect to 25°C with operating temperature range
Dissipative Factor (Tan)	C<10pf Tan = 10(3/ C+0.7)×10E-4 or 30×10E-4 whichever is less C=10pF, Tan = 10×10E-4	With respect to 25°C C=1000pF, 1Vrms/ 1MHz C>1000pF, 1Vrms/ 1kHz
Insulation Resistance (IR)	Rins >100GΩ or Rins ×C=1000S whichever is less	Vr (rated voltage) = 500V at Vr for 1 minute Vr (rated voltage) = 500V at 500V for 1 minute
Dielectric Withstanding Voltage	No Breakdown	Vr (rated voltage) = 100V at 2.5Vr for 5 seconds Vr (rated voltage) = 200/250V at 1.5Vr +100V for 5 seconds Vr (rated voltage) = 500V at 1.2Vr for 5 seconds

X7R / Z5U

Characteristic	Requirement	Test Conditions
Operating Temperature Range	X7R = -55°C to +125°C Z5U = -10°C to +85°C	
Temperature Coefficient (TC)	X7R = ±15% Z5U = +30% to -80%	With respect to 25°C with operating temperature range
Dissipative Factor (Tan)	X7R = 50V Tan = 2.5% 25V Tan = 3.5% 16V Tan = 5% Z5U = 50V Tan = 4% 25V Tan = 6%	With respect to 25°C C=1000pF, 1Vrms/ 1MHz C>1000pF, 1Vrms/ 1kHz
Insulation Resistance (IR)	Rins > 10GΩ or Rins xC=1000S Whichever is less	Vr (rated voltage) = 500V at Vr for 1 minute Vr (rated voltage) = 500V at 500V for 1 minute
Dielectric Withstanding Voltage	No Breakdown	Vr (rated voltage) = 100V at 2.5Vr for 5 seconds Vr (rated voltage) = 200/250V at 1.5Vr +100V for 5 seconds Vr (rated voltage) = 500V at 1.2Vr for 5 seconds

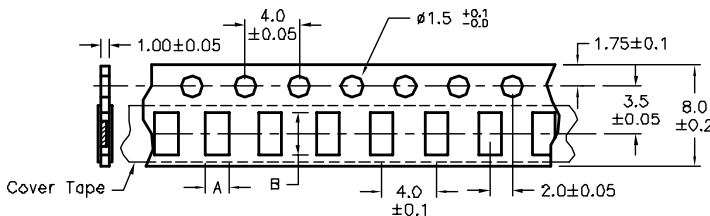
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Diagram



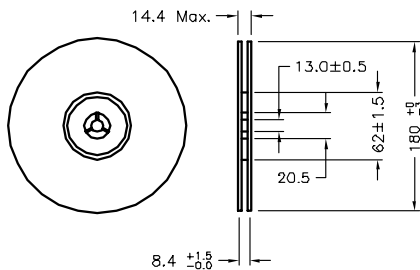
Part Number	EIR. Size	Dimensions				
		L	W	T (Max.)	C	A
MCS0805W104K1HRN-RH	0805	2 ±0.15	1.25 ±0.15	1.25	0.55	0.25 to 0.75
MCS0805Z104M1HRN-P47-RH						
MCS1206N561J1HRN-RH	1206	3.2 ±0.2	1.6 ±0.2	1.27	1.4	

Packaging: Paper Tape



EIA Size	Paper Tape Dimensions	
	A	B
0805	1.65±0.05	2.4±0.05
1206	2.00±0.10	3.5±0.10

Reel



Dimensions : Millimetres

Specification Table

Part Number	Capacitance	Tolerance (±%)	Dielectric	EIA Size
MCS0805W104K1HRN-RH	0.1uF	10	X7R	0805
MCS0805Z104M1HRN-P47-RH	0.1uF	20	Z5U	
MCS1206N561J1HRN-RH	560pF	5	NP0	1206

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