GZ Series

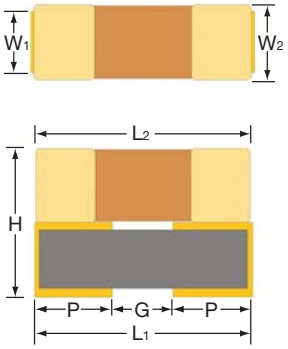
Maxi Broadband DC Block to 40GHz

GENERAL INFORMATION

The GZ Series was developed specifically to address DC Blocking issues from ~15KHz through 40GHz and incorporate small footprints to conserve board space. The three parts in this series are designed to match .015" (0.381mm) and .020" (0.508mm) micro strip widths. These assemblies (patent pending) combine high capacitance Ni-Au terminated MLC's for low frequency coverage and specially configured Maxi dielectric Single Layer Ceramics to facilitate conventional surface mounting. Most applications will experience resonance-free performance of <0.5dB thru at least 26.5GHz. Insertion loss at higher frequencies is in part dependent on installation parameters.

Custom designs (including those to match wider strip lines) are available upon request. Wire bondable designs for applications where strip line matching is not imperative, are also available. More information can be obtained by contacting the factory or your local AVX representative.

The assemblies are especially robust and capable of exceeding Resistance to Flexure Stress tests normally applied to MLC's. The high temperature connection between the MLC and SLC results in a joint whose re-melt temperature will withstand all normal soldering processes without deterioration. In applications where SN63 is used, the SLC termination will contribute <1% Au to the resultant joint–thereby, eliminating possible solder embrittlement problems.



ELECTRICAL SPECIFICATIONS

PART NUMBER	GZ0415ZD104M600ZNW	GZ0402ZD104M800ZNW	GZ06023C104M800ZNW
ELECTRICAL DATA			
Capacitance - MLC	0.1 µF ±20%		
Capacitance - SLC	60 pF +80%, -20%	80 pF +80%, -20%	
Voltage Rating	16 VDC @ +85°C; 10 VDC @ +125°C		25 VDC @ 125°C
Insulation Resistance	10,000 MegOhms @ 25°C; 1,000 MegOhms @ 125°C		
Operating Temp Range	-55°C to +125°C		
Temp Coefficient	X5R to +85°C; X7S to +125°C		X7R to +125°C
DIMENSIONS – Inches (Millimeters)			
L1 (SLC Length)	.043 ±.003 (1.092 ±.076)		.063 ±.003 (1.600 ±.076)
L2 (MLC Length)	.040 ±.004 (1.016 ±.102)		.063 ±.003 (1.600 ±.076)
W1 (SLC Width)	.015 ±.002 (.381 ±.051)	.020 ±.002 (.508 ±.051)	.022 ±.002 (.559 ±.051)
W2 (MLC Max Width)	.024 (.061)		.036 (.914)
H (Overall Height)	.046 (1.168) Max /.042 (1.067) Typ		.056 (1.422) Max /.053 (1.346) Typ
G (Gap)	.010 (.254) Typ		.020 (.508) Typ
SLC PAD SIZE (P x W1 – Typ of 2)	.015 ±.003 x .015 ±.002 (.381 ±.076 x .381 ±.051)	.015 ±.003 x .020 ±.002 (.381 ±.076 x .508 ±.051)	.020 ±.003 x .022 ±.002 (.508 ±.076 x .559 ±.051)
MTG FOOTPRINT (L1 x W1)	.043 ±.003 x .015 ±.002 (1.092 ±.076 x .381 ±.051)	.043 ±.003 x .020 ±.002 (1.092 ±.076 x .508 ±.051)	.063 ±.003 x .022 ±.002 (1.600 ±.076 x .559 ±.051)
TERMINATIONS	MLC – Ni-Au (plated); SLC – Ti/W-Ni-Au (sputtered)		
ATTACHMENT	Conductive Epoxy and Sn/Pb, Au/Sn & SAC Alloys		
PACKAGING	Waffle Pack (192 per) - 7" 8mm Tape & Reel Available (2000 pieces minimum)		

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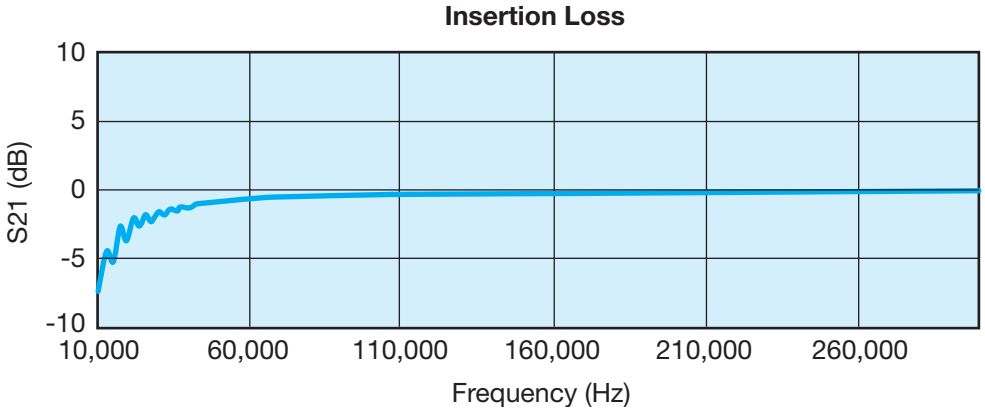
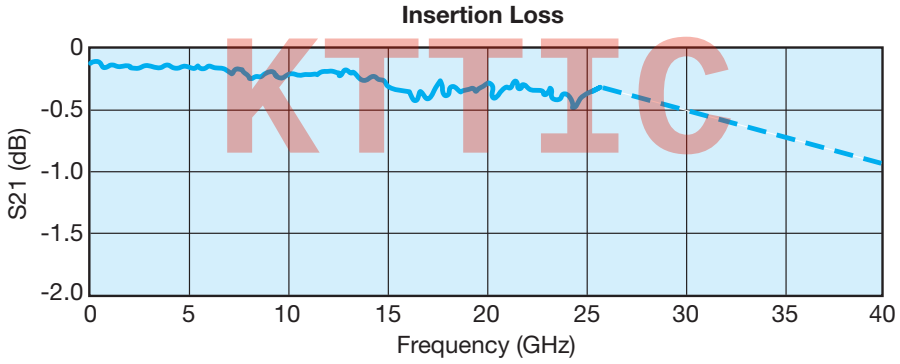
HOW TO ORDER

GZ	0402	Z	D	104	M	800	Z	N	W or T
Style	**Mounting Footprint**	**Voltage Rating** Z = 10V Y = 16V 3 = 25V	**MLC Dielectric** X7R = C X5R = D	**MLC Capacitance** EIA Cap Code in pF	**MLC Tolerance** M = ±20%	**SLC Capacitance** EIA Cap Code in pF	**SLC Tolerance** Z = +80% -20%	**SLC Termination** Ti/W-Ni-Au	**Packaging Code** W = Waffle Pack T = Tape & 7" Reel





Typical performance on 10 mil alumina, 20 mil trace and 10 mil gap