

SM Beads (Differential-Mode)



Part Number: 275255577

52 SM BEAD

Explanation of Part Numbers:

- Digits 1 & 2 = Product Class
- Digits 3 & 4 = Material Grade
- Last digit 6 = Bulk Packed, 7 = Taped and Reeled

Surface mount beads are available from Fair-Rite in several materials and sizes. Their rugged construction lowers the dc resistance and increases current carrying capacity compared to plated beads.

Wires are oxygen free high conductivity copper with 100% matte tin plating over a nickel undercoating.

SM Beads meet the solderability specifications when tested in accordance with MIL-STD-202, method 208. After dipping the mounting site of the bead, the solder surface shall be at least 95% covered with a smooth solder coating. The edges of the copper strip are not specified as solderable surfaces.

After preheating the beads to within 100 °C of the soldering temperature, the parts meet the resistance to soldering requirements of EIA-186-10E, temperature 260 ± 5 °C and time 10 ± 1 seconds.

Recommended storage and operation temperature is -55 °C to 125 °C.

Our "Surface Mount Bead Kit" (part number 0199000025) is available for prototype evaluation.

Recommended Soldering Profile

Packaging Options:

- SM Beads on 12 mm tape width are supplied taped and reeled per EIA 481 and IEC 60286-3 standards. SM Beads on 16 and 24 mm tape widths are supplied taped and reeled per EIA 481 and IEC 60286-3 standards. Taped and reeled parts are supplied on a 13″ reel.
- SM Beads can also be supplied not taped and reeled and then are bulk packed. This packing method will change the last digit of the part number to a "6".

For any SM Bead requirement not listed, please contact our customer service group for availability and pricing.

Catalog Drawing 3D Model

Suggested land patterns are in accordance with the latest revision of IPC-7351.

Weight: 0.96 (g)

Dim	mm	mm tol	mm tol nominal inch		inch misc.		Reel Information					
A	5	Max	0.197		Max			Tape	Pitch	Parts 7"	Parts 13"	Parts
В	5	±0.25	0.197					Width mm	mm	Reel	Reel	14" Reel
С	11	Max	0.433		Max			24	8		1500	
D	2.5	±0.50	0.098		_							•
Land Patterns							- c		-	,	V -	
V		W	W			Y	Z	X X				
2.00 (0.079")		7.00 (0.276")		2.00 (0.079")		5.00 (0.197")		Land Pattern - Y -				
							1	Figure 3		ior Fig. 3		

Chart Legend

+ Test frequency

Typical Impe	dance (Ω)		
100 MHz	640		
250 MHz ⁺	811		
500 MHz ⁺	510		
1000 MHz	285		
Electrical Properties			
Max Rdc(mQ)	6.2		

SM Beads are controlled for impedance limits only. Minimum impedance values are specified for the + marked frequencies. The minimum impedance is listed on our catalog drawing.

Catalog Drawing

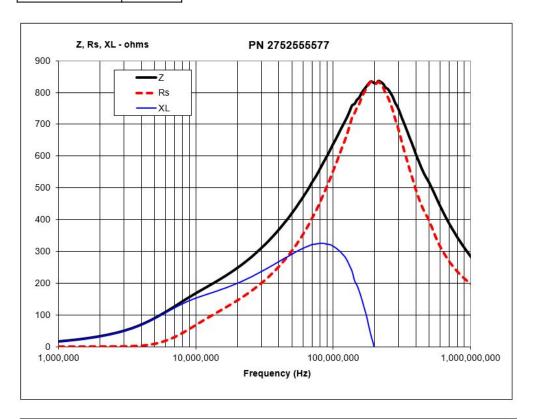
SM Beads in 73, 43 and 44 materials are measured for impedance on the E4990A Impedance Analyzer. The 52 and 61 SM Beads are tested for impedance on the E4991A / $\rm HP4291B$ Impedance Analyzer.

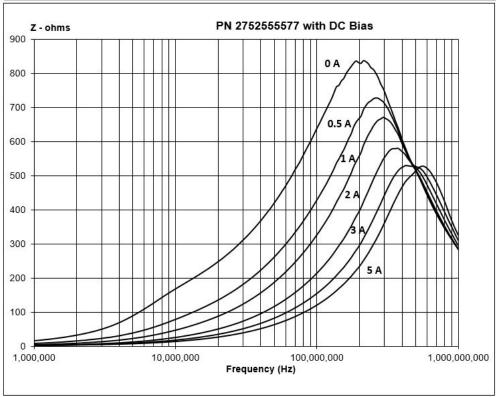
The maximum practical current rating for these SM Beads is 5 amps, check the component bias curves. The 019/021/037

and 044 SM Beads can with stand a continuous current of 10 amps resulting in a component temperature rise $<40~^{\circ}\mathrm{C}$

「ypical Impendance (Ω)				
100 MHz	700			
250 MHz ⁺	770			
500 MHz ⁺	440			

Typical Impend	ance (Ω)
1000 MHz	250





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