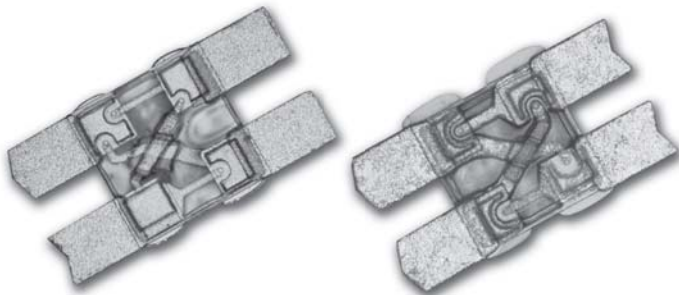


MSS PCB / PCR Series

Silicon Coplanar Bridge and Ring Quad Diodes



Description

Aeroflex / Metelics coplanar bridge and ring quad diodes are fabricated on N-Type epitaxial substrates using proprietary processes that yield the highest FCOs in the industry. Barrier heights for LO power levels from +3 dBm to +17 dBm are available..

Features

- Four different barrier heights
- Millimeter wave performance
- Hi-Rel screening per MIL-PRF-19500 and MIL-PRF-38534 available

Absolute Maximum Ratings

Parameters	Rating
Reverse Voltage	Rated V_{BR}
Forward Current	50 mA
Operation Temperature	-65 °C to +150 °C
Storage Temperature	-65 °C to +150 °C
Power Dissipation	75 mW per junction at $T_A = 25$ °C, derate linearly to zero at $T_A = +150$ °C
Soldering Temperature (Packaged)	+ 260 °C for 5 sec.
Beam Lead Pull Strength, Min	6 grams

Electrical Specifications, $T_A = 25$ °C

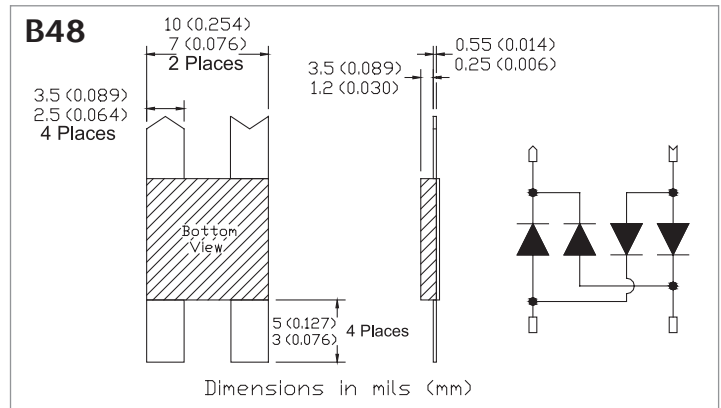
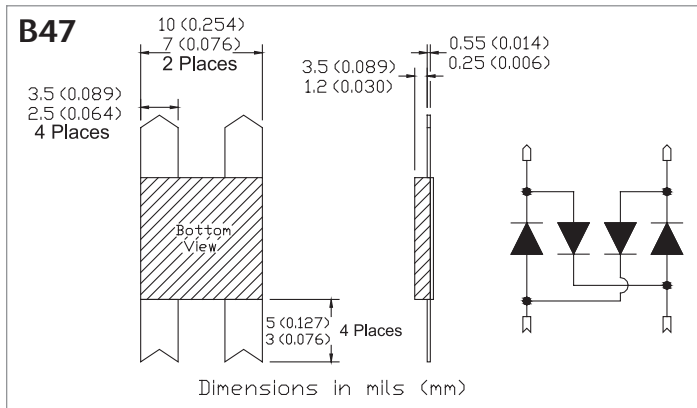
Model	Configuration	V_F TYP mV	V_{BR} MIN V	C_j TYP / MAX pF	R_D TYP / MAX Ω	Outline
MSS30,PCR46-B47	Ring Quad	280	3	0.07 / 0.13	15 / 22	B47
MSS30,PCR53-B47	Ring Quad	260	3	0.15 / 0.25	10 / 15	B47
MSS30,PCB46-B48	Bridge Quad	280	3	0.08 / 0.12	12 / 20	B48
MSS40,PCR46-B47	Ring Quad	470	3	0.07 / 0.13	15 / 22	B47
MSS40,PCR53-B47	Ring Quad	430	3	0.15 / 0.25	10 / 15	B47
MSS40,PCB46-B48	Bridge Quad	470	3	0.08 / 0.12	12 / 20	B48
Test Conditions		$I_F = 1$ mA	$I_R = 10$ μ A	$V_R = 0$ V $F = 1$ MHz	$I_F = 5$ mA	



Electrical Specifications, $T_A = 25^\circ\text{C}$ (Continued)

Model	Configuration	V_F TYP mV	V_{BR} MIN V	C_j TYP / MAX pF	R_D TYP / MAX Ω	Outline
MSS50,PCR46-B47	Ring Quad	530	5	0.07 / 0.13	15 / 22	B47
MSS50,PCR53-B47	Ring Quad	500	5	0.15 / 0.25	10 / 15	B47
MSS50,PCB46-B48	Bridge Quad	530	5	0.08 / 0.12	12 / 20	B48
MSS60,PCR46-B47	Ring Quad	620	4	0.07 / 0.13	15 / 22	B47
MSS60,PCR53-B47	Ring Quad	600	4	0.15 / 0.25	12 / 15	B47
MSS60,PCB46-B48	Bridge Quad	620	4	0.08 / 0.12	12 / 20	B48
Test Conditions		$I_F = 1\text{ mA}$	$I_R = 10\text{ }\mu\text{A}$	$V_R = 0\text{ V}$ $F = 1\text{ MHz}$	$I_F = 5\text{ mA}$	

Outline Drawings



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Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.