

Schottky Barrier Bridge Quads

SemiGen's Silicon Schottky Diodes are designed for applications through 40GHz. The special process technology utilizes various metal schemes to provide excellent performance of Low, Medium, and High Barrier applications. The end result is a low resistance diode with tightly controlled capacitance which allows for optimum performance. Low conversation loss and superior TSS make these diodes ideal for detector / mixer applications with frequency ranges from S band to Ka band as well as modulators, lower power limiters and high speed switches.

Features:

- Stable Performance
- Monolithic Construction
- Matched Electrical Performance

Applications:

For use in designs of doublers, modulators, and double balanced mixers up to 40 GHz.

Packages:

Ceramic, Beam Lead



Low Barrier Bridge Quads					
Breakdown Voltage @ 10 μ A MIN (V)	Forward Voltage @ 1 mA TYP (V)	Delta Forward Voltage @ 1 mA MAX (mV)	Total Capacitance @ 0 Vdc 1 Mhz TYP (pF)	Series Resistance @ 5 mM TYP (Ohms)	Part Number
2.0	295	25	0.15	20	SBQ700
2.0	295	25	0.20	16	SBQ703
2.0	305	25	0.20	16	SBQ704
2.0	325	25	0.15	16	SBQ705
2.0	300	25	0.35	14	SBQ707
2.0	325	25	0.30	14	SBQ708

Medium Barrier Bridge Quads					
Breakdown Voltage @ 10 μ A MIN (V)	Forward Voltage @ 1 mA TYP (V)	Delta Forward Voltage @ 1 mA MAX (mV)	Total Capacitance @ 0 Vdc 1 Mhz TYP (pF)	Series Resistance @ 5 mM TYP (Ohms)	Part Number
3.0	375	25	0.15	20	SBQ800
3.0	375	25	0.20	16	SBQ803
3.0	395	25	0.20	16	SBQ804
3.0	425	25	0.15	16	SBQ805
3.0	395	25	0.35	14	SBQ807
3.0	475	25	0.25	14	SBQ809

High Barrier Bridge Quads					
Breakdown Voltage @ 10 μ A MIN (V)	Forward Voltage @ 1 mA TYP (V)	Delta Forward Voltage @ 1 mA MAX (mV)	Total Capacitance @ 0 Vdc 1 Mhz TYP (pF)	Series Resistance @ 5 mM TYP (Ohms)	Part Number
5.0	475	25	0.15	20	SBQ900
5.0	475	25	0.20	16	SBQ903
5.0	495	25	0.20	16	SBQ904
5.0	515	25	0.15	16	SBQ905
5.0	525	25	0.35	14	SBQ907
5.0	625	25	0.25	14	SBQ909

Maximum Ratings		
Operating Temperature	Storage Temperature	Power Dissipation @ 25° C
-55° C to +150° C	-65° C to +200° C	250 mW
(derate linearly to zero at 150° C)		