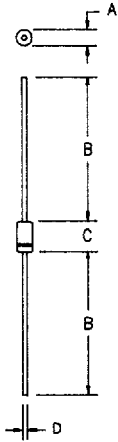


5 Amp Schottky Rectifier MS508, MS509, MS510



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.188	.260	4.78	6.50	Dia.
B	1.00	---	25.4	---	
C	.285	.375	7.24	9.52	
D	.046	.056	1.17	1.42	Dia.

PLASTIC D0201AD

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage	
MS508	80V	80V	<ul style="list-style-type: none"> • Schottky Barrier Rectifier • Guard Ring Protection • Low power loss, high efficiency • High surge capacity • V_{RRM} 80 to 100 Volts
MS509	90V	90V	
MS510	100V	100V	

Electrical Characteristics		
Average forward current	I _{F(AV)} 5.0 Amps	T _A = 131°C Square wave, R _{θJL} = 11°C/W, L = 1/8"
Average forward current	I _{F(AV)} 5.0 Amps	T _A = 116°C Square wave, R _{θJL} = 14.7°C/W, L = 3/8"
Maximum surge current	I _{FSM} 300 Amps	8.3ms, half sine, T _J = 175°C
Max peak forward voltage	V _{FM} .60 Volts	I _{FM} = 5.0A; T _J = 175°C*
Max peak forward voltage	V _{FM} .80 Volts	I _{FM} = 5.0A; T _J = 25°C*
Max peak reverse current	I _{RM} 250 μA	V _{RRM} , T _J = 25°C
Typical junction capacitance	C _J 280 pF	V _R = 5.0V, T _J = 25°C

*Pulse test: Pulse width 300 μsec, Duty cycle 2%

Thermal and Mechanical Characteristics		
Storage temperature range	T _{STG}	-40°C to 175°C
Operating junction temp range	T _J	-40°C to 175°C
Maximum thermal resistance	L = 1/8" R _{θJL}	11°C/W
	L = 3/8" R _{θJL}	14.7°C/W
Weight		.032 ounces (1.0 grams) typical

Microsemi Corp.
Colorado

PH: 303-469-2161
FAX: 303-466-3775

C-77

MS508, MS509, MS510

Figure 1
Typical Forward Characteristics

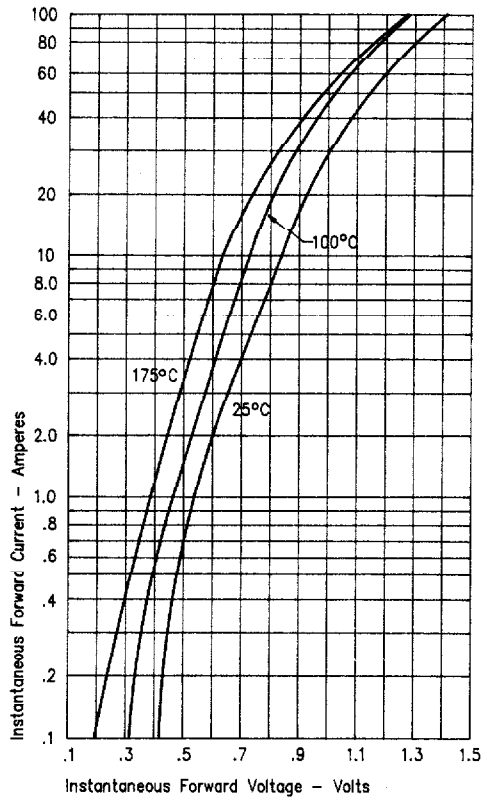


Figure 3
Typical Junction Capacitance

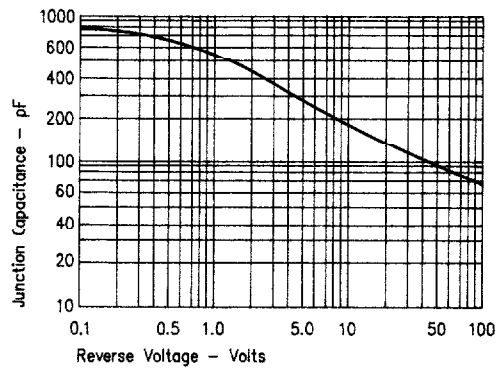


Figure 4
Forward Current Derating

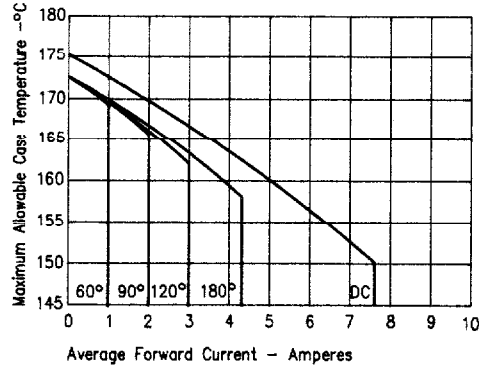


Figure 2
Typical Reverse Characteristics

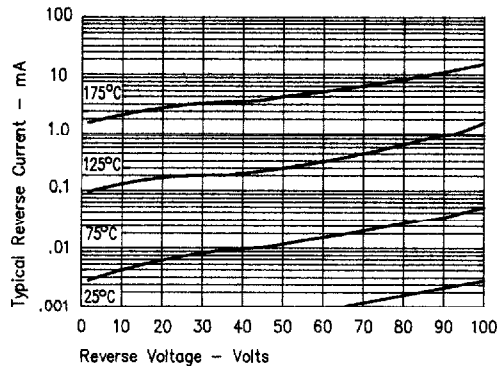


Figure 5
Maximum Forward Power Dissipation

