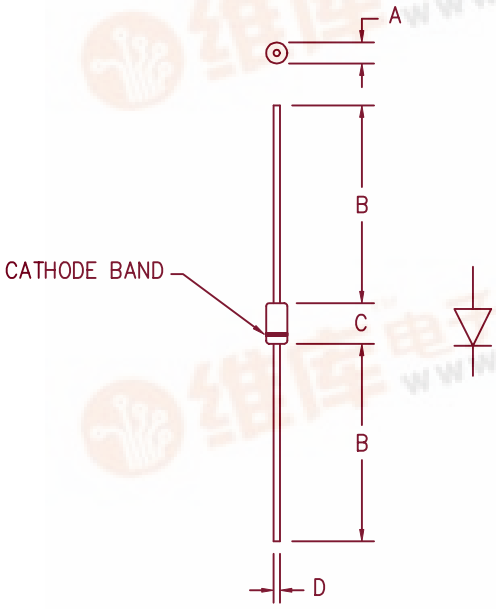
5 Amp Schottky Rectifier

MS508 – MS510



Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
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 DO201AD

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
MS508	80V	80V
MS509	90V	90V
MS510	100V	100V

- Schottky Barrier Rectifier
- Guard Ring Protection
- Low power loss, high efficiency
- High surge capacity
- V_{RRM} 80 to 100 Volts

Electrical Characteristics

Average forward current	$I_{F(AV)}$ 5.0 Amps	T_A = 131°C Square wave, $R_{\theta JL}$ = 11°C/W, L = 1/8"
Average forward current	$I_{F(AV)}$ 5.0 Amps	T_A = 116°C Square wave, $R_{\theta JL}$ = 14.7°C/W, L = 3/8"
Maximum surge current	I_{FSM} 250 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}	−55°C to 175°C
Operating junction temp range	T_J	−55°C to 175°C
Maximum thermal resistance	L = 1/8" $R_{\theta JL}$	11°C/W Junction to lead
	L = 3/8" $R_{\theta JL}$	14.7°C/W Junction to lead
Weight		.032 ounces (1.0 grams) typical

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Figure 1
Typical Forward Characteristics

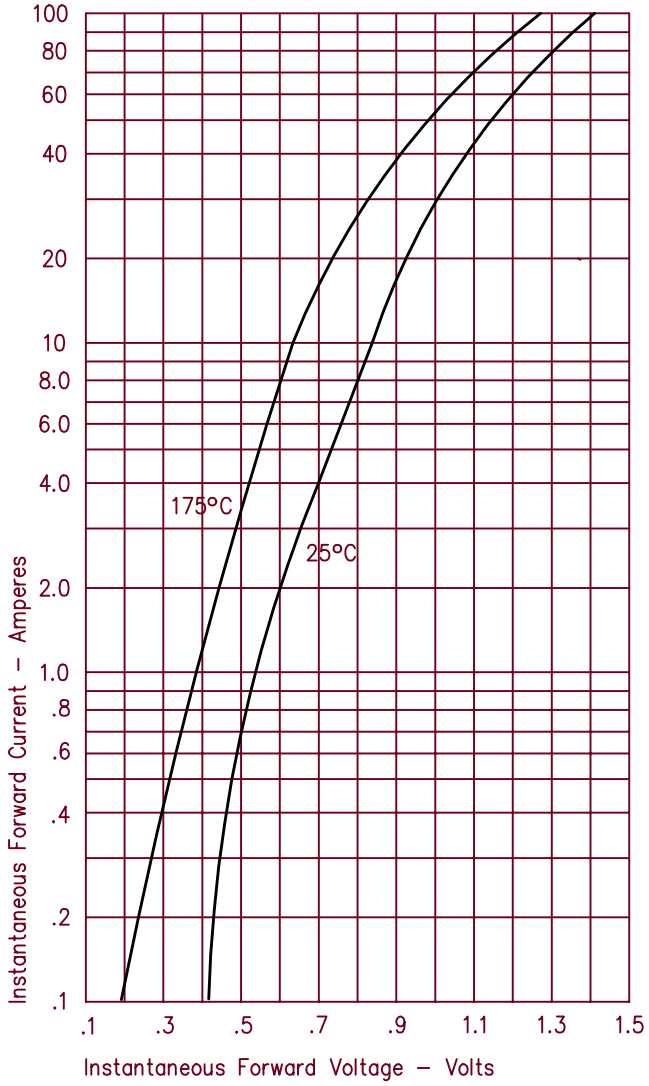

Figure 2
Typical Reverse Characteristics

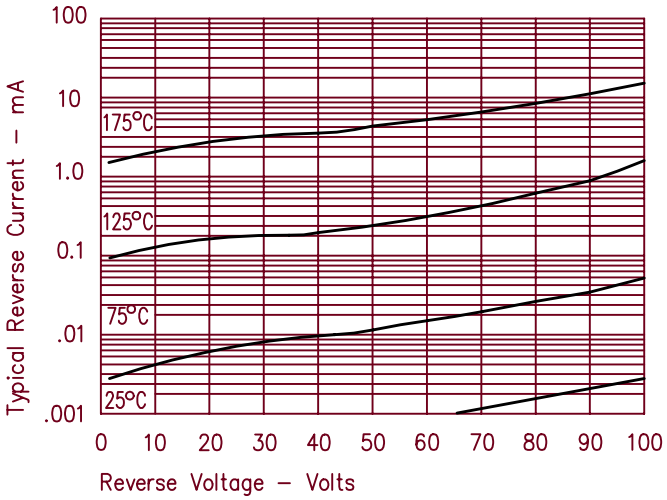

Figure 3
Typical Junction Capacitance