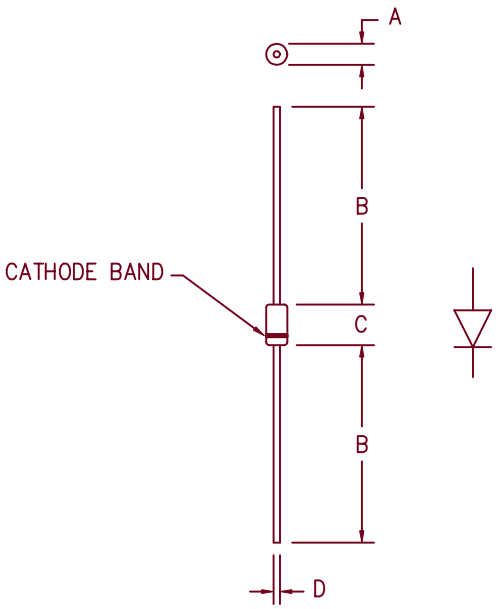
1 Amp Schottky Rectifier

MSG140 – MSG150



Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
A	.081	.107	2.057	2.718	Dia.
B	1.10	---	27.94	---	
C	.160	.205	4.064	5.207	
D	.028	.034	.711	.864	Dia.

GLASS HERMETIC DO41

Catalog Number	Working Peak Reverse Voltage V_{RWM}	Repetitive Peak Reverse Voltage V_{RRM}
MSG140	40V	40V
MSG145	45V	45V
MSG150	50V	50V

- Schottky Barrier Rectifier
- Guard Ring Protection
- Low Forward Voltage
- 150°C Junction Temperature
- V_{RRM} 40 to 50 Volts

Electrical Characteristics

Average forward current	$I_{F(AV)}$ 1.0 Amps	T_A = 120°C Square wave
Maximum surge current	I_{FSM} 50 Amps	8.3 ms, half sine, T_J = 150°C
Max peak forward voltage	V_{FM} .58 Volts	I_{FM} = 1.0A; T_J = 25°C*
Max peak reverse current	I_{RM} 100 μA	V_{RRM}, T_J = 25°C
Typical junction capacitance	C_J 60pF	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}	−65°C to + 175°C
Operating junction temp range		T_J	−65°C to + 150°C
Maximum thermal resistance	L = 1/4"	$R_{\theta JL}$	15°C/W Junction to Lead
Weight			0.38 grams typical

4–14–00 Rev. 1

COLORADO Microsemi
800 Hoyt Street
Broomfield, CO. 80020
PH: (303) 469–2161
FAX: (303) 466–3775
www.microsemi.com

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Figure 1
Maximum Forward Characteristics

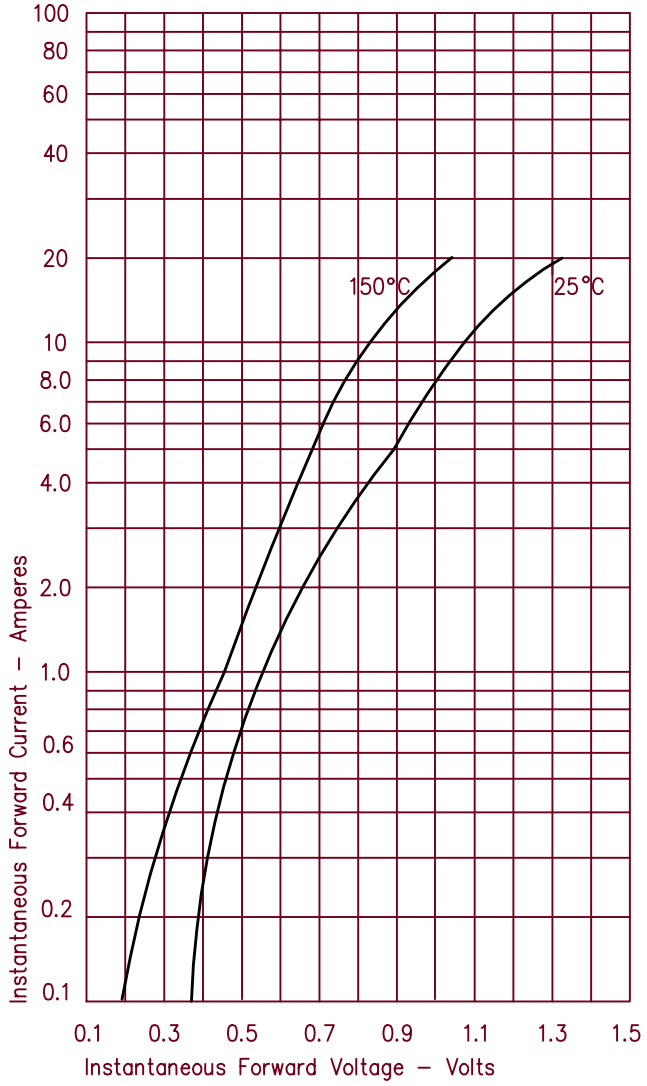

Figure 2
Typical Reverse Characteristics

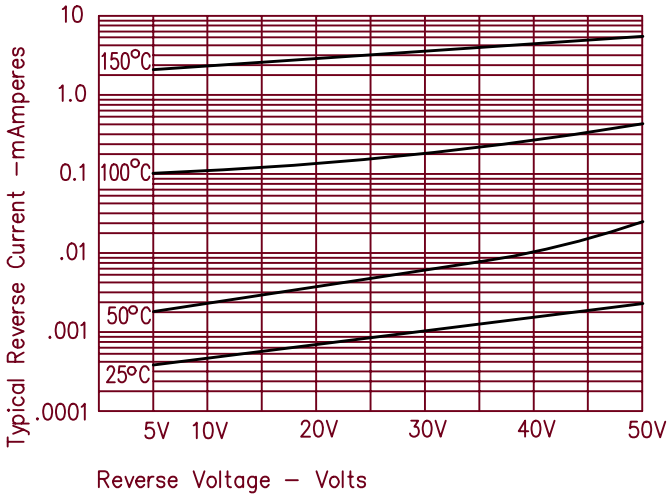

Figure 3
Typical Junction Capacitance