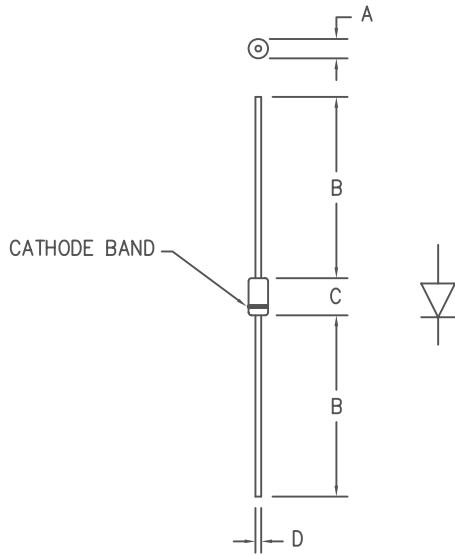


# 1 Amp Schottky Rectifier MSG140 — MSG150



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
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 D041

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
- VRRM 40 to 50 Volts

Electrical Characteristics		
Average forward current	$I_F(AV)$ 1.0 Amps	$T_L = 105^\circ\text{C}$ Square wave
Maximum surge current	$I_{FSM}$ 50 Amps	8.3 ms, half sine, $T_J = 150^\circ\text{C}$
Max peak forward voltage	$V_{FM}$ .58 Volts	$I_{FM} = 1.0A; T_J = 25^\circ\text{C}^*$
Max peak reverse current	$I_{RM}$ 100 $\mu\text{A}$	$V_{RRM}, T_J = 25^\circ\text{C}$
Typical junction capacitance	$C_J$ 60pF	$V_R = 5.0V, T_J = 25^\circ\text{C}$
*Pulse test: Pulse width 300 $\mu\text{sec}$ , 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	$R_{\theta JL}$ L = 1/4"	30°C/W Junction to Lead
Weight		0.38 grams typical



8700 East Thomas Road, P.O. Box 1390  
Scottsdale, AZ 85252  
PH: (480) 941-6300  
FAX: (480) 947-1503  
www.microsemi.com

05-25-07 Rev. 3

# MSG140 — MSG150

Figure 1  
Maximum Forward Characteristics

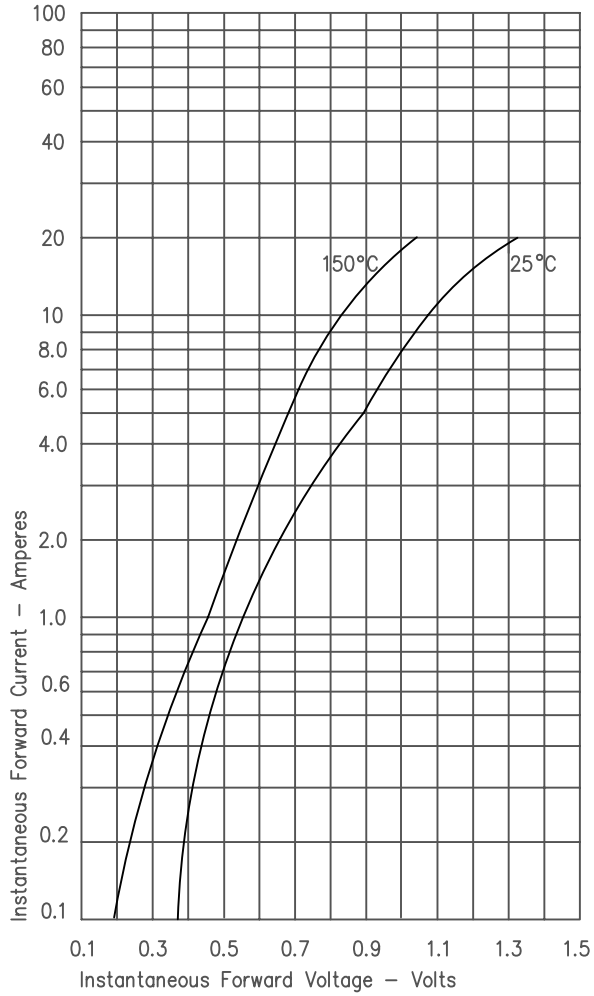


Figure 3  
Typical Junction Capacitance

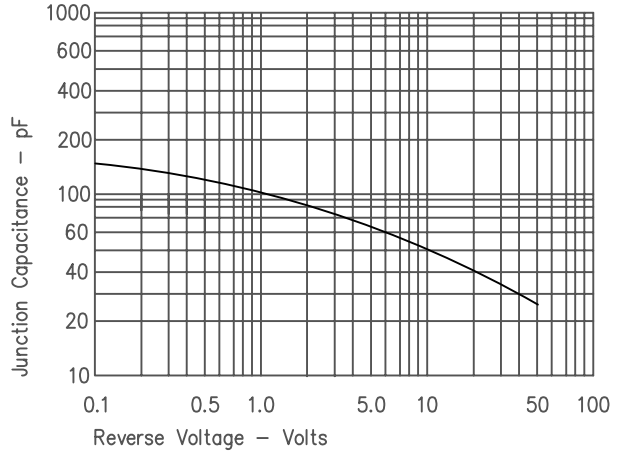


Figure 2  
Typical Reverse Characteristics

