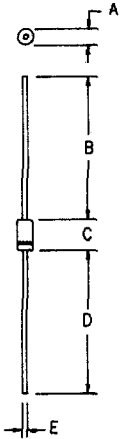


# 1 Amp Schottky Rectifier

## MSG140, MSG145, MSG150



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	---	.107	---	2.718	Dia.
B	1.10	---	27.940	---	
C	---	.205	---	5.207	
D	1.10	---	27.940	---	
E	.030	.034	.762	.864	

GLASS HERMETIC D041

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

- Schottky Barrier Rectifier
- Guard Ring Protection
- Low Forward Voltage
- 1 Ampere/50 Volts
- 150°C Junction Temperature
- VRRM 40 to 50 Volts

Electrical Characteristics		
Average forward current	$I_F(AV)$ 1.0 Amps	$T_A = 120^\circ C$ Square wave, $R_{\theta JL} = 35^\circ C/W$ , $L = 0$
Average forward current	$I_F(AV)$ 1.0 Amps	$T_A = 100^\circ C$ Square wave, $R_{\theta JL} = 60^\circ C/W$ , $L = 3/8"$
Maximum surge current	$I_{FSM}$ 75 Amps	8.3 ms, half sine, $T_J = 150^\circ C$
Max peak forward voltage	$V_{FM}$ .39 Volts	$I_{FM} = 0.1A$ ; $T_J = 25^\circ C$ *
Max peak forward voltage	$V_{FM}$ .58 Volts	$I_{FM} = 1.0A$ ; $T_J = 25^\circ C$ *
Max peak reverse current	$I_{RM}$ 100 $\mu A$	$V_{RRM}$ , $T_J = 25^\circ C$
Typical junction capacitance	$C_J$ 60pF	$V_R = 5.0V$ , $T_J = 25^\circ C$
*Pulse test: Pulse width 300 $\mu sec$ , 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	$R_{\theta JL}$	60°C/W
	$R_{\theta JL}$	35°C/W
		Junction to Lead
		Junction to Lead
Weight		0.38 grams typical

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Figure 1  
Maximum Forward Characteristics

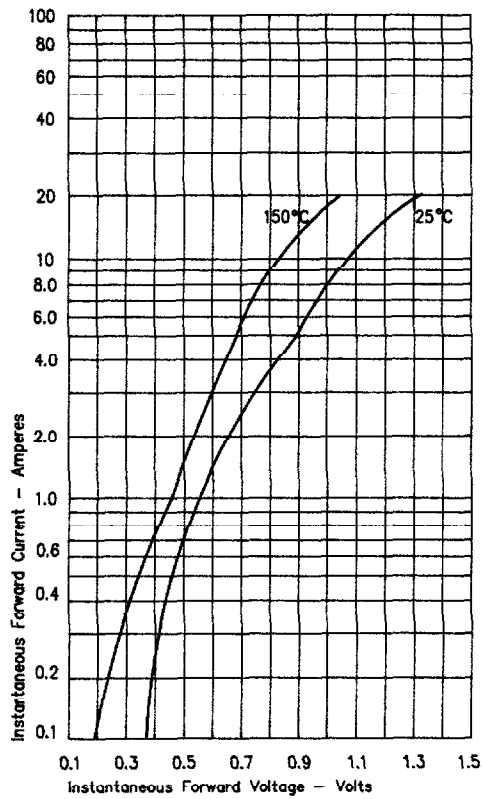


Figure 3  
Typical Junction Capacitance

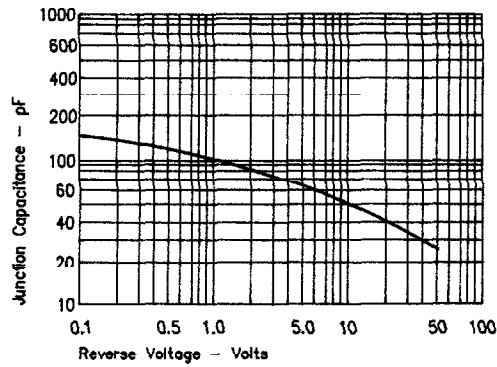


Figure 2  
Typical Reverse Characteristics

