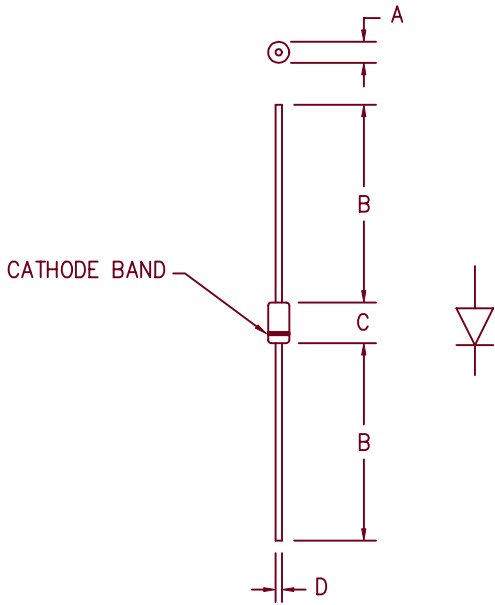


1 Amp Schottky Rectifier MSP140 — MSP150



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.

PLASTIC D041

Catalog Number	Working Peak Reverse Voltage V_{RWM}	Repetitive Peak Reverse Voltage V_{RRM}
MSP140	40V	40V
MSP145	45V	45V
MSP150	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	$T_A = 120^\circ\text{C}$ Square wave, $R_{\theta JL} = 35^\circ\text{C/W}$, $L = 0$
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 μA	$V_{RRM}, T_J = 25^\circ\text{C}$
Typical junction capacitance	C_J 60pF	$V_R = 5.0V, T_J = 25^\circ\text{C}$

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

Thermal and Mechanical Characteristics

Storage temperature range	T_{STG}	-55°C to $+175^\circ\text{C}$
Operating junction temp range	T_J	-55°C to $+150^\circ\text{C}$
Maximum thermal resistance	$R_{\theta JL}$	15 $^\circ\text{C/W}$ Junction to Lead
Weight		0.38 grams typical

4-17-00 Rev. 1

MSP140 — MSP150

Figure 1
Maximum Forward Characteristics

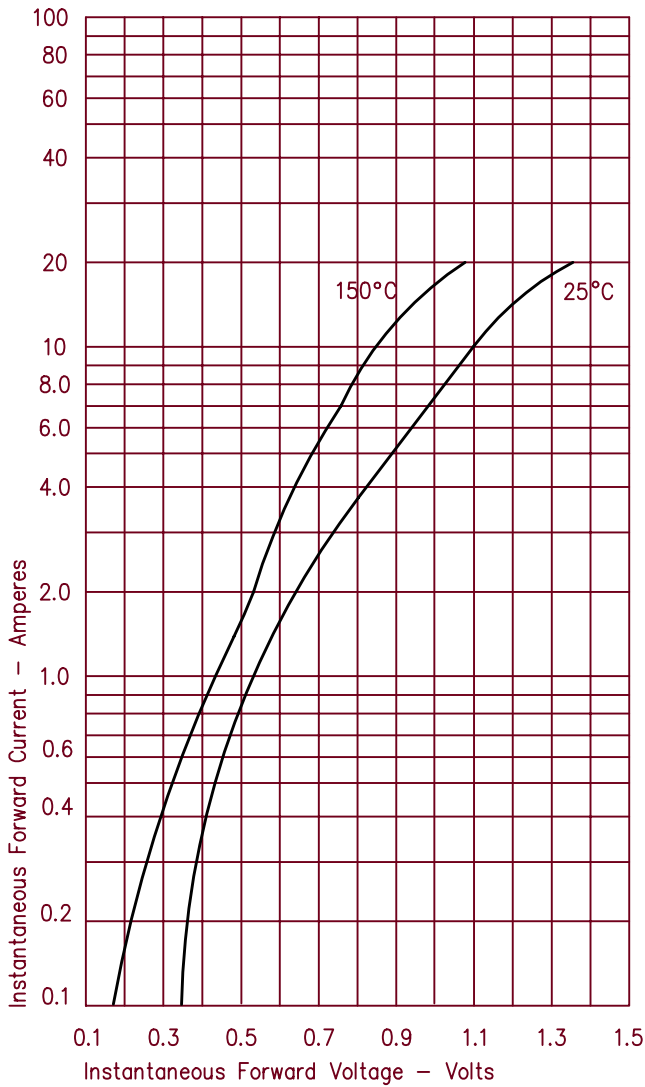


Figure 3
Typical Junction Capacitance

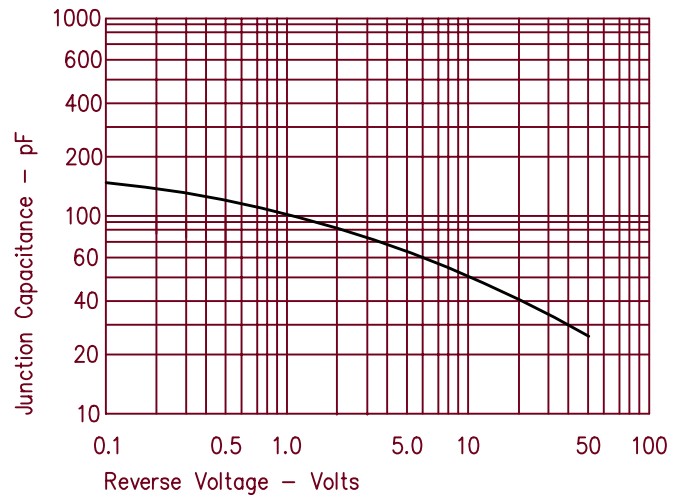


Figure 2
Typical Reverse Characteristics

