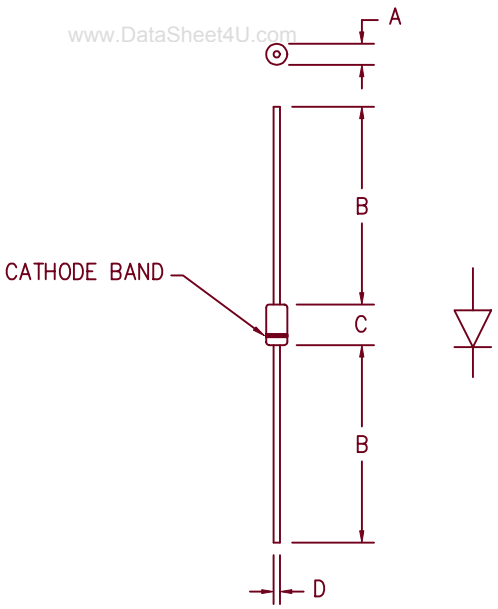
5 Amp Schottky Rectifier

MSP535 – MSP545



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 D0201AD

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
MSP535	35V	35V
MSP540	40V	40V
MSP545	45V	45V

- Schottky Barrier Rectifier
- Guard Ring for Reverse Protection
- 175°C Junction Temperature
- V_{RRM} 35 to 45 Volts
- High Current Capability

Electrical Characteristics

Average forward current	$I_{F(AV)}$ 5.0 Amps	T_A = 121°C Square wave, $R_{\theta JL}$ = 11°C/W, L = 1/8"
Average forward current	$I_{F(AV)}$ 5.0 Amps	T_A = 111°C, Square wave, $R_{\theta JL}$ = 14.7°C/W, L = 3/8"
Maximum surge current	I_{FSM} 300 Amps	8.3ms, half sine, T_J = 175°C
Max peak forward voltage	V_{FM} .42 Volts	I_{FM} = 5A; T_J = 150°C*
Max peak forward voltage	V_{FM} .52 Volts	I_{FM} = 5A; T_J = 25°C*
Max peak reverse current	I_{RM} 500 mA	V_{RRM}, T_J = 125°C*
Max peak reverse current	I_{RM} 2 mA	V_{RRM}, T_J = 25°C
Typical junction capacitance	C_J 380 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 150°C
Maximum thermal resistance	L = 3/8" $R_{\theta JL}$	14.7°C/W Junction to Lead
	L = 1/8" $R_{\theta JL}$	11°C/W Junction to Lead
Weight		.032 ounces (1.0 grams) typical

4–6–00 Rev. 1

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

MSP535 – MSP545

Figure 1
Typical Forward Characteristics

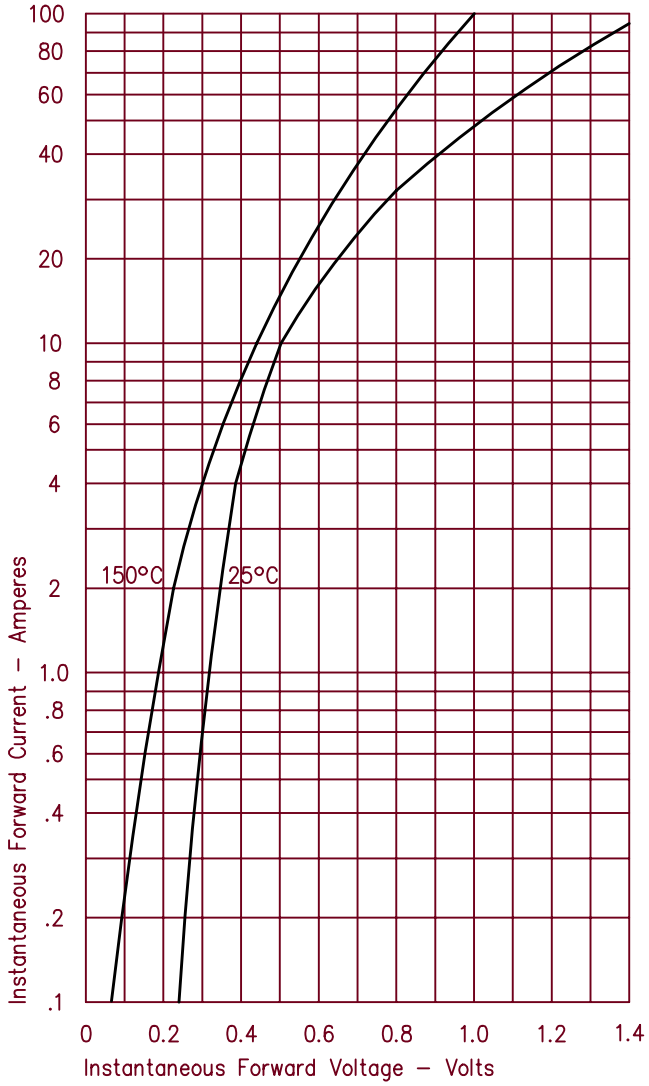


Figure 2
Typical Reverse Characteristics

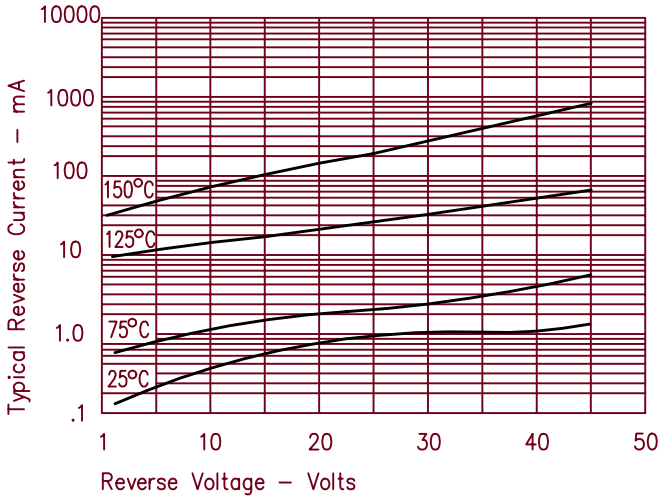


Figure 3
Typical Junction Capacitance