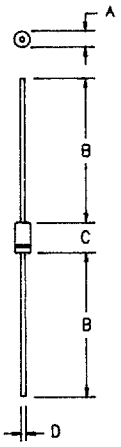
3 Amp Schottky Rectifier
MSP345



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
MSP345	45V	45V

- Schottky Barrier Rectifier
- Guard Ring Protection
- Low Forward Voltage
- 150° C Junction Temperature

Electrical Characteristics

Average forward current	$I_{F(AV)}$ 3.0 Amps	T_A = 120°C, Square wave, $R_{\theta JL}$ = 17°C/W, L = 1/8"
Average forward current	$I_{F(AV)}$ 3.0 Amps	T_A = 110°C, Square wave, $R_{\theta JL}$ = 23°C/W, L = 3/8"
Maximum surge current	I_{FSM} 150 Amps	8.3ms, half sine, T_J = 150°C
Max peak forward voltage	V_{FM} .45 Volts	I_{FM} = 1.0A; T_J = 25°C *
Max peak forward voltage	V_{FM} .52 Volts	I_{FM} = 3.0A; T_J = 25°C *
Max peak forward voltage	V_{FM} .76 Volts	I_{FM} = 9.4A; T_J = 25°C *
Max peak reverse current	I_{RM} 1.5 mA	V_{RRM}, T_J = 25°C
Typical junction capacitance	C_J 265 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}	−40°C to 150°C
Operating junction temp range	T_J	−40°C to 150°C
Maximum thermal resistance L = 1/8"	$R_{\theta JL}$	17°C/W
Maximum thermal resistance L = 3/8"	$R_{\theta JL}$	23°C/W
Weight		.032 ounces (1.0 grams) typical

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Colorado

MSP345

Figure 1
Typical Forward Characteristics

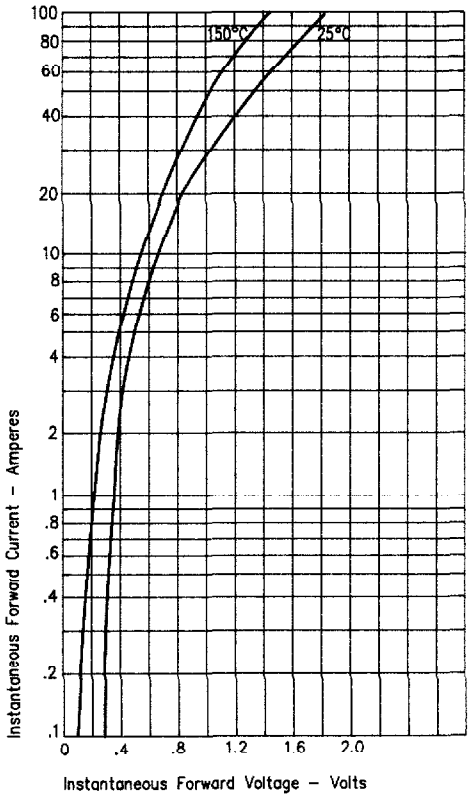

Figure 2
Typical Reverse Characteristics

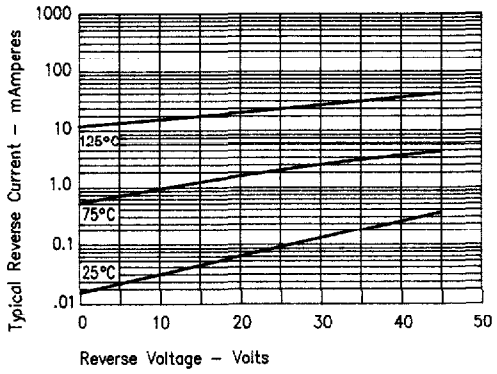

Figure 3
Typical Junction Capacitance