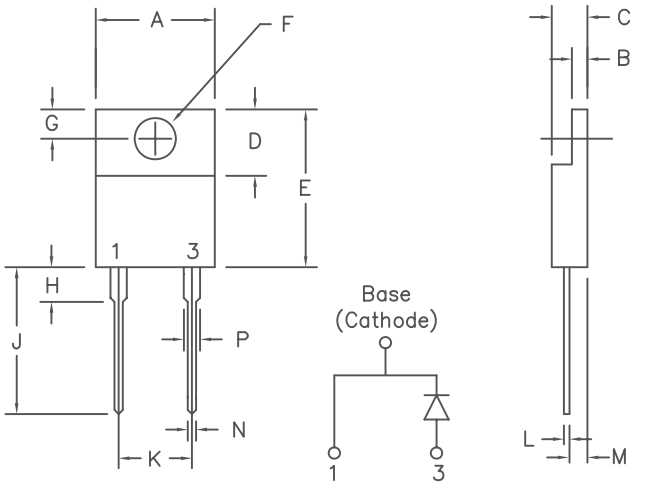
10 Amp Schottky Rectifier

MS1045



Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
A	.390	.415	9.91	10.54	
B	.045	.055	1.14	1.40	
C	.180	.190	4.57	4.83	
D	.245	.260	6.22	6.60	
E	.550	.650	13.97	16.51	
F	.139	.155	3.53	3.94	Dia.
G	.100	.120	2.54	3.05	
H	---	.250	---	6.35	
J	.500	.580	12.70	14.73	
K	.190	.210	4.83	5.33	
L	.014	.025	0.35	0.63	
M	.080	.115	2.03	2.92	
N	.028	.038	0.71	0.96	
P	.045	.055	1.14	1.40	

Similar to TO-220AC

Microsemi Catalog Number	Industry Part Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
	SBL10L30	30V	30V
	10TQ03	35V	35V
	MBR735, MBR1035		
	SBL8L40	40V	40V
MS1045	MBR745	45V	45V
	MBR1045, 10TQ045		

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

Electrical Characteristics

Average forward current	$I_{F(AV)}$ 10 Amps	T_C = 115°C Square wave, $R_{\theta JC}$ = 2.5°C/W
Maximum surge current	$I_{F(AV)}$ 225 Amps	8.3 ms, half sine, T_J = 150°C
Max peak forward voltage	V_{FM} .47 Volts	I_{FM} = 10A; T_J = 150°C*
Max peak forward voltage	V_{FM} .56 Volts	I_{FM} = 10A; T_J = 25°C*
Max peak reverse current	I_{RM} 2 mA	V_{RRM}, T_J = 25°C
Typical junction capacitance	C_J 575 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	$R_{\theta JC}$	2.5°C/W Junction to Case
Mounting torque		8-12 inch pounds (6-32 screw)
Weight		.08 ounces (2.3 grams) typical

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MS1045

Figure 1
Typical Forward Characteristic

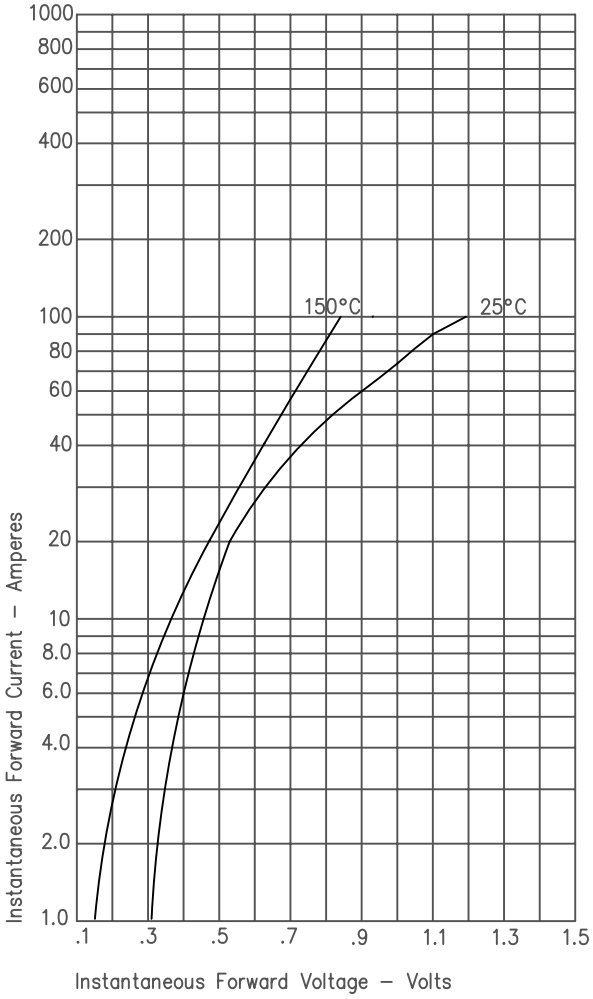


Figure 2
Typical Reverse Characteristics

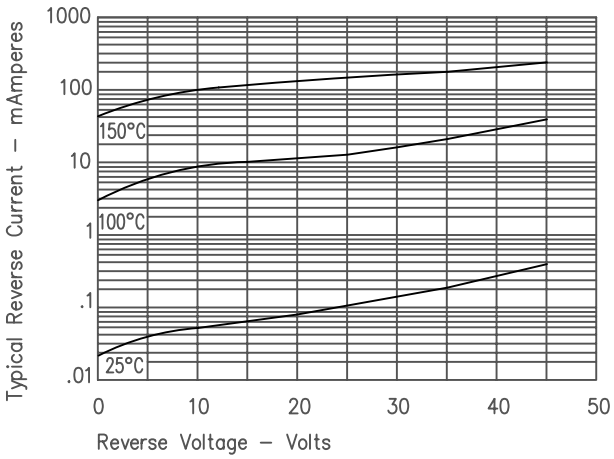


Figure 3
Typical Junction Capacitance

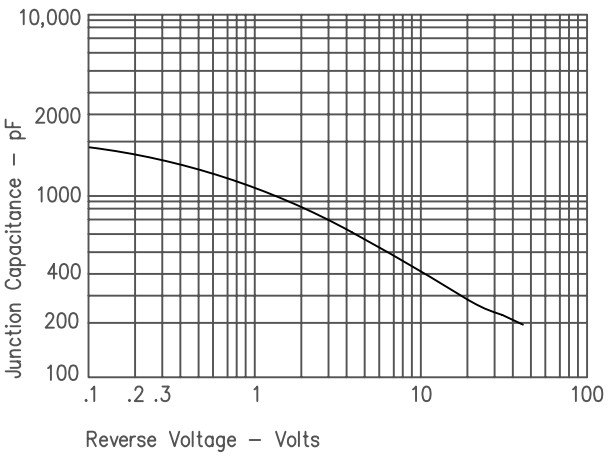


Figure 4
Forward Current Derating

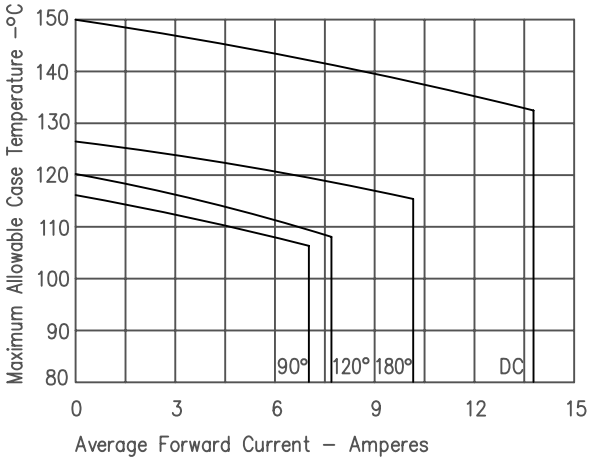
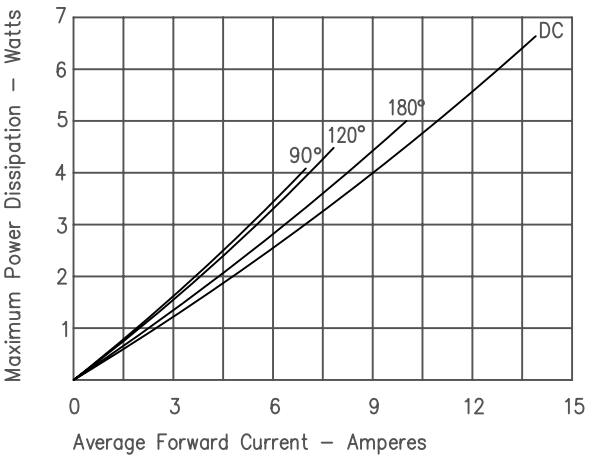


Figure 5
Maximum Forward Power Dissipation



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