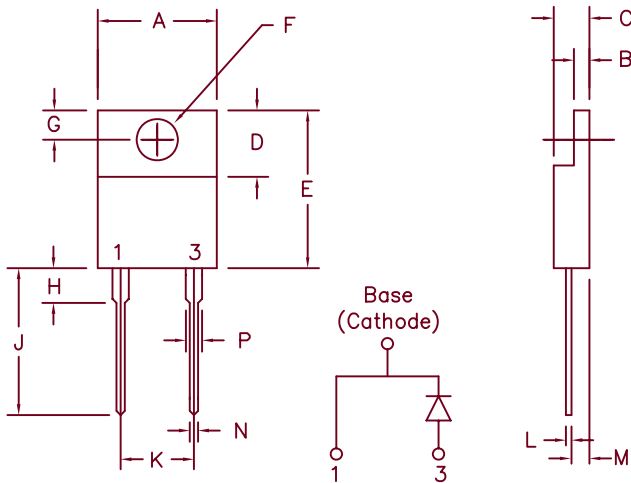


20 Amp Schottky OR'ing Rectifier MS2020



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
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	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
MS2020	20V	20V

- Schottky barrier rectifier
- $V_f @ 20A, 125^\circ C = 0.29V$
- High surge capacity
- $125^\circ C$ Junction temperature
- Guard ring reverse protection

Electrical Characteristics

Average Forward Current	$I_F(AV)$ 20 Amps	$T_C = 105^\circ C$
Maximum Surge Current	I_{FSM} 250 Amps	8.3ms, half sine
Max. Repetitive Reverse Current	$I_{R(OV)}$ 2 Amps	$f = 1KHZ, 25^\circ C, 1\mu s$ square wave
Max. Peak Forward Voltage	V_{FM} .40 Volts	$I_{FM} = 20A, T_J = 25^\circ C^*$
Typ. Peak Forward Voltage	V_{FM} .29 Volts	$I_{FM} = 20A, T_J = 125^\circ C^*$
Max. Peak Reverse Current	I_{RM} 10 mA	$V_{RRM}, T_J = 25^\circ C$
Typ. Peak Reverse Current	I_{RM} 425 mA	$V_{RRM}, T_J = 100^\circ C^*$
Typ. Peak Reverse Current	I_{RM} 175 mA	$V_R = 5.0V, T_J = 100^\circ C^*$
Typical Junction Capacitance	C_J 1550 pF	$V_R = 5.0V, T_J = 25^\circ C$

*Pulse test: Pulse width 300 μ sec Duty cycle 2%

Thermal and Mechanical Characteristics

Storage temp range	T_{STG}	$-55^\circ C$ to $150^\circ C$
Operating junction temp range	T_J	$-55^\circ C$ to $125^\circ C$
Max. thermal resistance	$R_{\theta JC}$	$1.5^\circ C/W$
Mounting torque		8-12 inch pounds (6-32 screw)
Weight		.08 ounces (2.3 grams) typical



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05-25-07 Rev. 2

MS2020

Figure 1
Typical Forward Characteristics

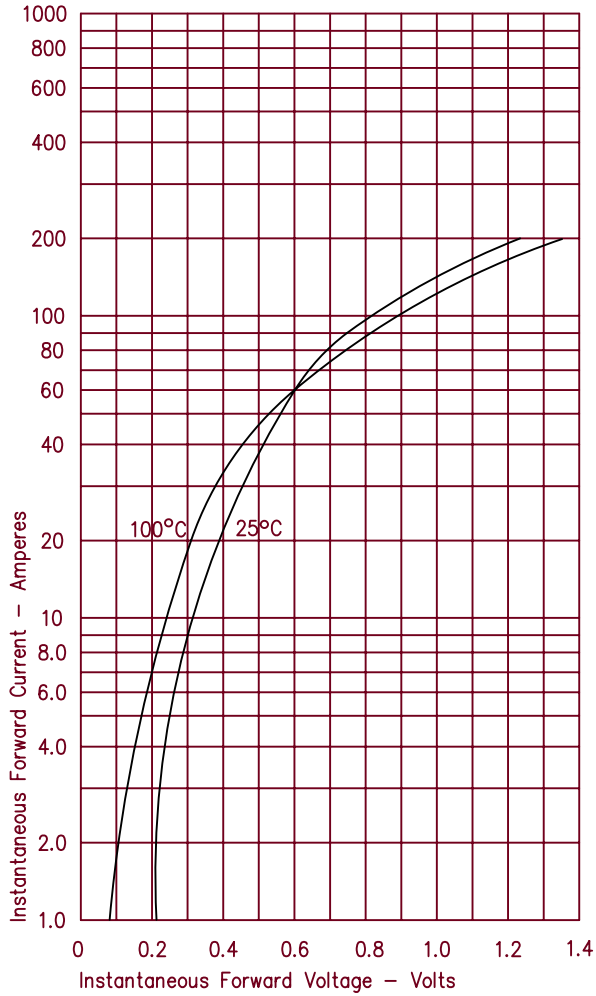


Figure 3
Typical Junction Capacitance

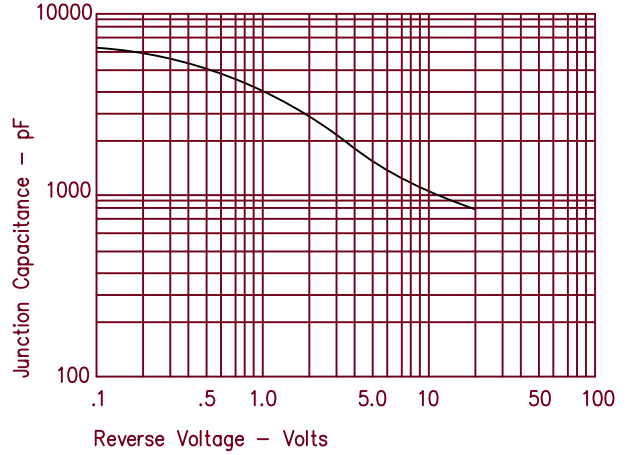


Figure 4
Forward Current Derating

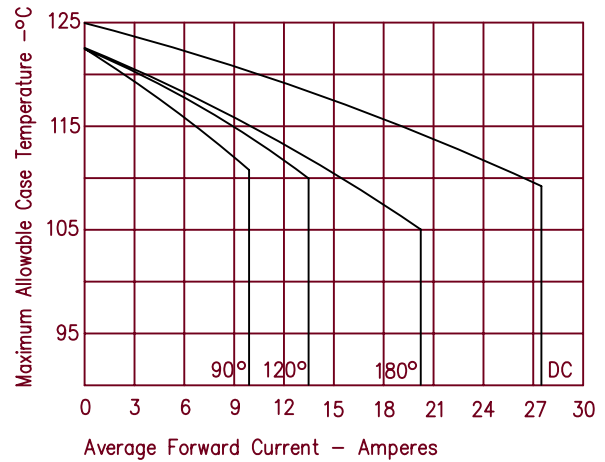


Figure 2
Typical Reverse Characteristics

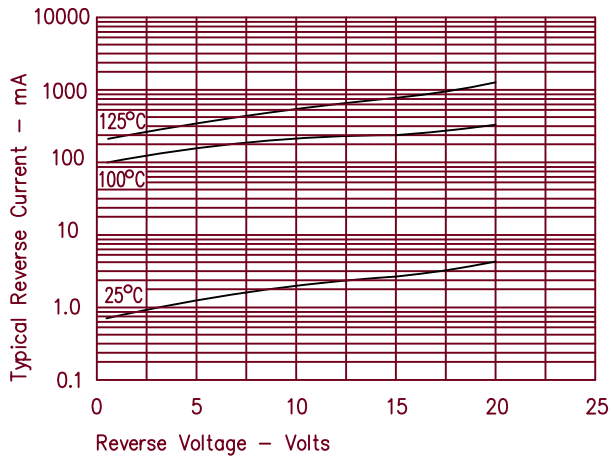


Figure 5
Maximum Forward Power Dissipation

