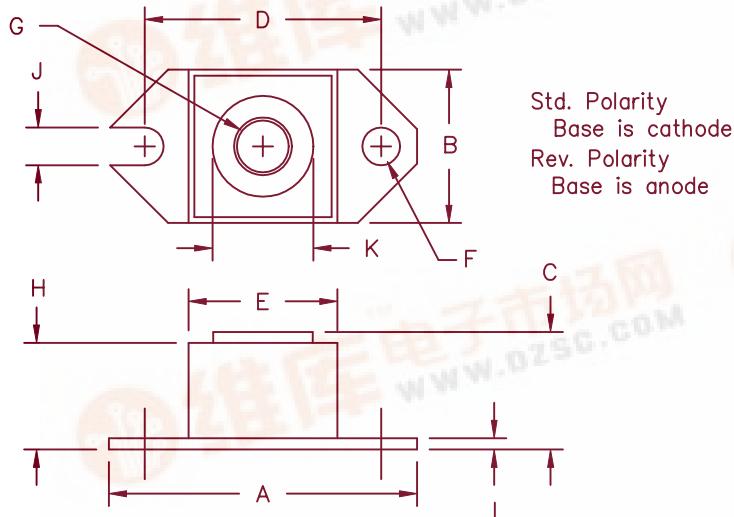


120 Amp Schottky Rectifier

HS12135 – HS12145



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	1.52	1.56	38.86	39.62	
B	.725	.775	18.42	19.69	
C	.605	.625	15.37	15.88	
D	1.182	1.192	30.02	30.28	
E	.745	.755	18.92	19.18	Sq.
F	.152	.160	3.86	4.06	Dia.
G			1/4-20 UNC-2B		
H	.570	.580	14.49	14.73	
J	.156	.160	3.96	4.06	
K	.495	.505	12.57	12.83	Dia.
L	.120	.130	3.05	3.30	

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
HS12135*	35V	35V
HS12140*	40V	40V
HS12145*	45V	45V

*Add Suffix R for Reverse Polarity

- Schottky Barrier Rectifier
- Guard Ring Protection
- 120 Amperes/ 35 to 45 Volts
- 175°C Junction Temperature
- Reverse Energy Tested

Electrical Characteristics

Average forward current	I(F(AV)) 120 Amps
Maximum surge current	I(FSM) 2000 Amps
Maximum repetitive reverse current	I(R(OV)) 2 Amps
Max peak forward voltage	VFM 0.60 Volts
Max peak forward voltage	VFM 0.70 Volts
Max peak reverse current	I(RM) 75 mA
Max peak reverse current	I(RM) 10 mA
Typical junction capacitance	C _J 4600 pF

T _C = 146°C, Square wave, R _{θJC} = 0.40°C/W
8.3ms, half sine, T _J = 175°C
f = 1 KHZ, 25°C
I _{FM} = 120A: T _J = 125°C*
I _{FM} = 120A: T _J = 25°C*
V _{RRM} , T _J = 125°C*
V _{RRM} , T _J = 25°C
V _R = 5.0V, T _C = 25°C

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

Thermal and Mechanical Characteristics

Storage temp range	T _{STG}	-55°C to 175°C
Operating junction temp range	T _J	-55°C to 175°C
Max thermal resistance per leg	R _{θJC}	0.40°C/W Junction to case
Typical thermal resistance (greased)	R _{θCS}	0.12°C/W Case to sink
Terminal Torque		35–40 inch pounds
Mounting Base Torque		20–25 inch pounds
Weight		1.1 ounces (32 grams) typical

HS12135 - HS12145

Figure 1
Typical Forward Characteristics

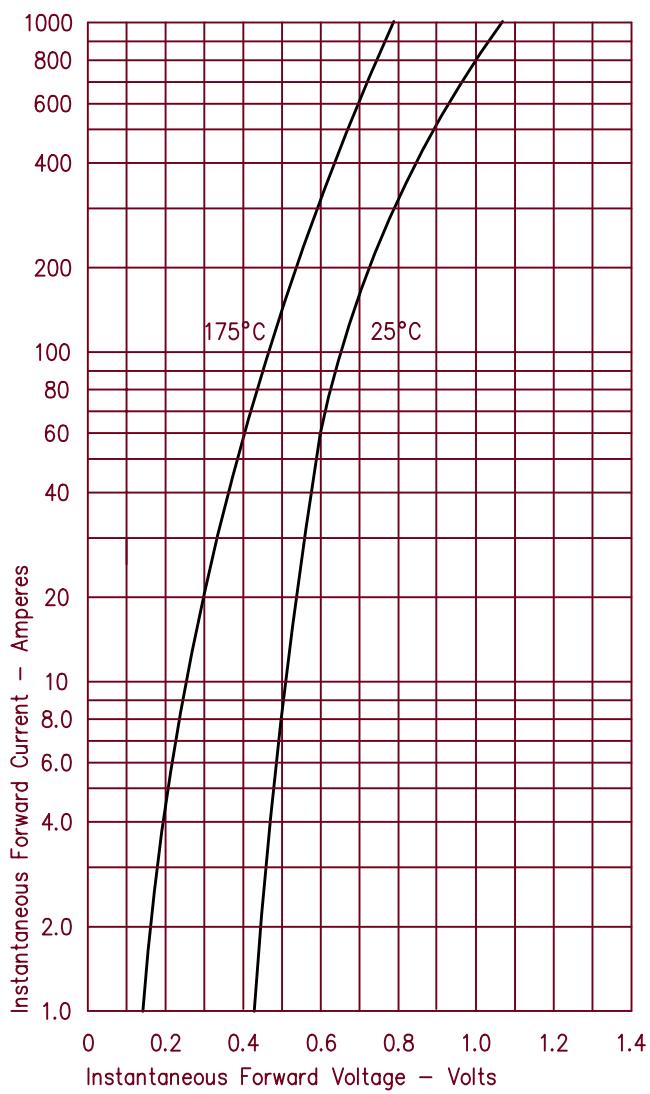


Figure 2
Typical Reverse Characteristics

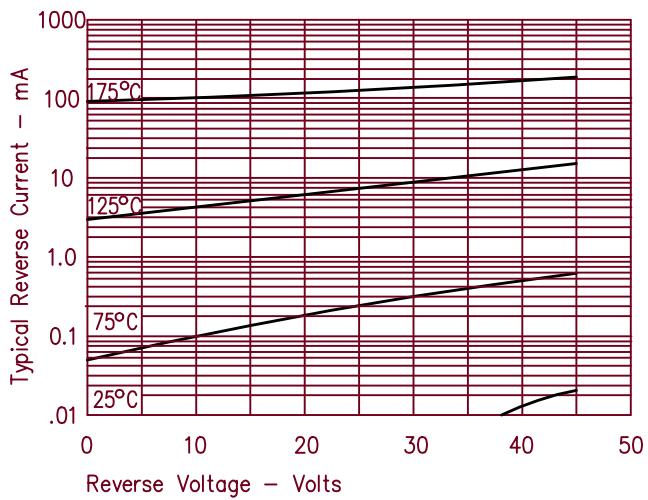


Figure 3
Typical Junction Capacitance

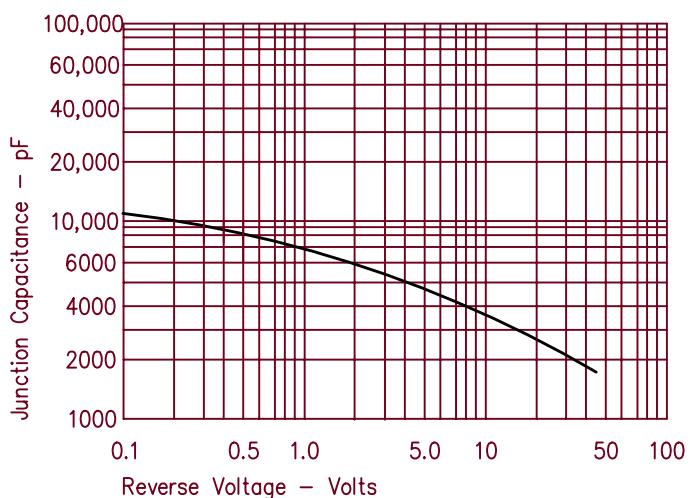


Figure 4
Forward Current Derating

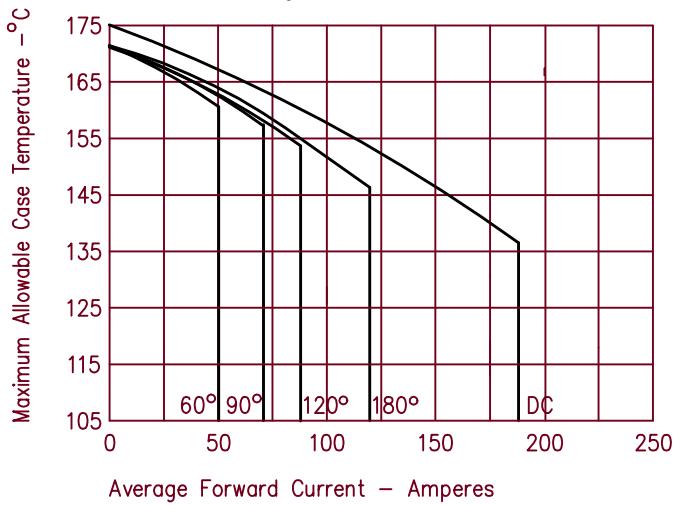


Figure 5
Maximum Forward Power Dissipation

