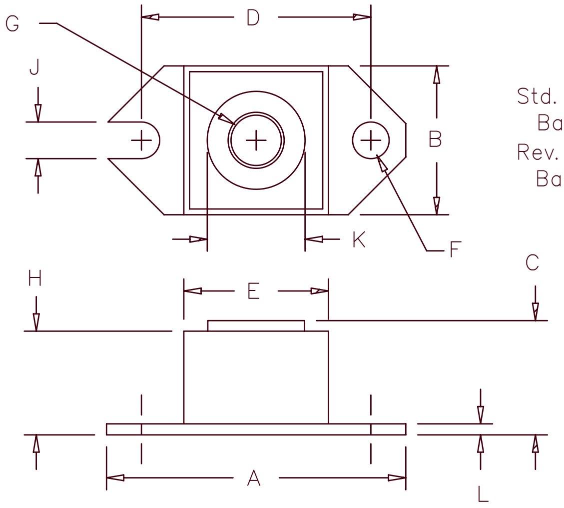
240 Amp Schottky Rectifier
HS24380 – HS243100



Std. Polarity
Base is cathode
Rev. Polarity
Base is anode

Dim.	Inches Minimum	Inches Maximum	Millimeter Minimum	Millimeter Maximum	Notes
A	1.52	1.56	38.61	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	.525	.580	13.34	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	Industry Part Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
HS24380*	243NQ080 MBR24080	80V	80V
HS24390*		90V	90V
HS243100*	243NQ100 MBR240100	100V	100V

*Add Suffix R for Reverse Polarity

- Schottky Barrier Rectifier
- Guard Ring Protection
- 240 Amperes/80 to 100 Volts
- 175°C Junction Temperature
- Reverse Energy Tested
- ROHS Compliant

Electrical Characteristics

Average forward current	$I_{F(AV)}$	240 Amps	T_C = 122°C, Square wave, $R_{\theta JC}$ =.24°C/W
Maximum surge current	I_{FSM}	3300 Amps	8.3ms, half sine, T_J = 175°C
Maximum repetitive reverse current	$I_{R(OV)}$	2 Amps	f = 1 KHZ, 25°C
Max peak forward voltage	V_{FM}	0.72 Volts	I_{FM} = 240A: T_J = 175°C*
Max peak forward voltage	V_{FM}	0.86 Volts	I_{FM} = 240A: T_J = 25°C*
Max peak reverse current	I_{RM}	200mA	V_{RRM}, T_J = 125°C*
Max peak reverse current	I_{RM}	8.0mA	V_{RRM}, T_J = 25°C
Typical junction capacitance	C_J	6400pF	V_R = 5.0V, T_C = 25°C

*Pulse test: Pulse width 300µsec, 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	$R_{\theta JC}$	0.24°C/W Junction to case
Typical thermal resistance (greased)	$R_{\theta CS}$	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

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HS24380 — HS243100

Figure 1
Typical Forward Characteristics

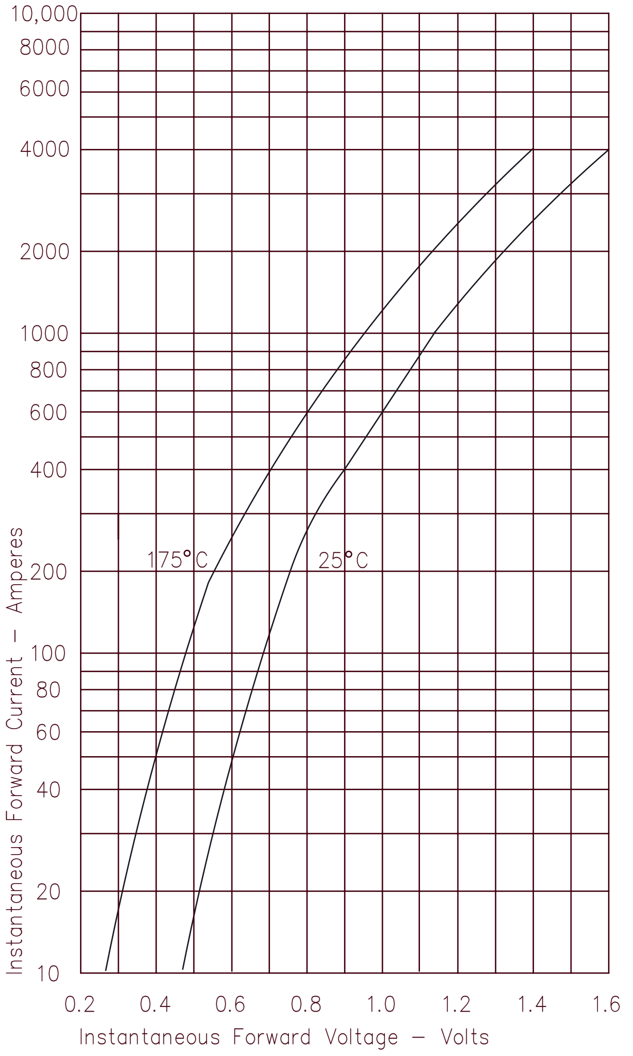


Figure 2
Typical Reverse Characteristics

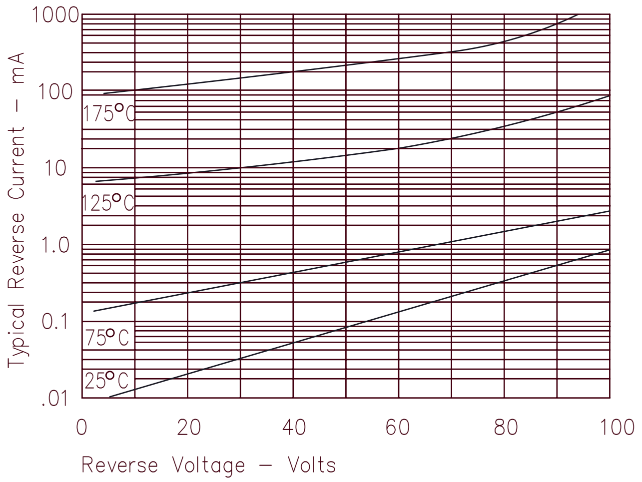


Figure 3
Typical Junction Capacitance

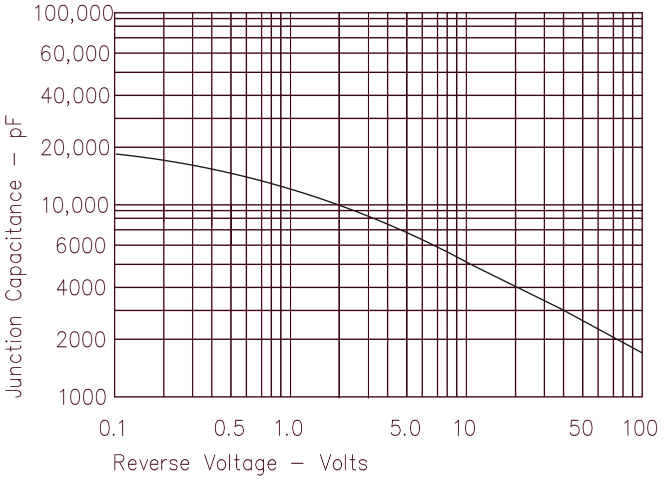


Figure 4
Forward Current Derating

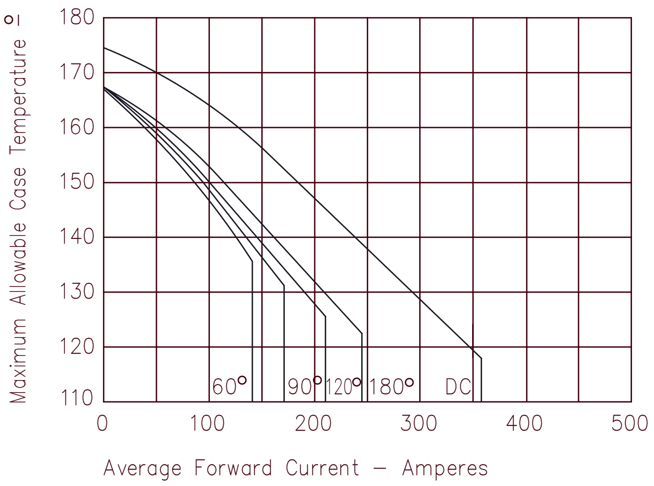
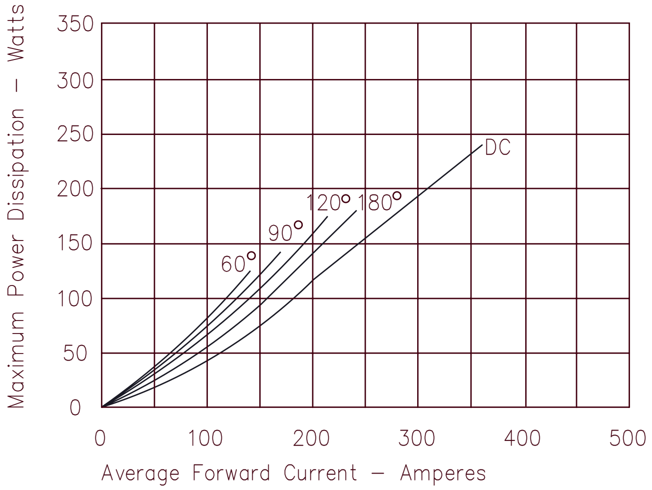


Figure 5
Maximum Forward Power Dissipation



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