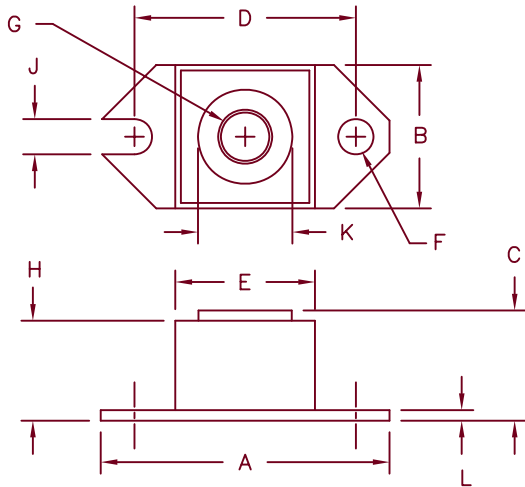


240 Amp Schottky Rectifier

HS24035 – HS24045



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	Industry Part Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
HS24035*	240NQ035,244NQ035 MBRP20035L,MBRP30035L MBR24035	35V	35V
HS24040*	240NQ040,244NQ040 MBR24040	40V	40V
HS24045*	240NQ045,244NQ045 MBR24045	45V	45V

*Add suffix R for Reverse Polarity

- Schottky Barrier Rectifier
- Guard ring protection
- Low forward voltage
- VRRM – 35 to 45 volts
- 150°C junction temperature
- Reverse energy tested

Electrical Characteristics

Average forward current	I _{F(AV)} 240 Amps	T _C = 92°C, square wave, R _{θJC} = 0.24°C/W
Maximum surge current	I _{FSM} 3500 Amp	8.3 ms, half sine T _J = 150°C
Max repetitive peak reverse current	I _{R(OV)} 2 Amps	f = 1 KHz, 25°C, 1 μsec square wave
Max peak forward voltage	V _{FM} 0.49 Volts	I _{FM} = 240A: T _J = 125°C*
Max peak forward voltage	V _{FM} 0.55 Volts	I _{FM} = 240A: T _J = 25°C *
Max peak reverse current	I _{RM} 3.0 A	V _{RRM} , T _J = 125°C*
Max peak reverse current	I _{RM} 12 mA	V _{RRM} , T _J = 25°C
Typical junction capacitance	C _J 10500 pF	V _R = 5.0V, T _J = 25°C

*Pulse test: Pulse width 300 μsec, 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 150°C
Maximum thermal resistance	R _{θJC}	0.24°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 torque		20-25 inch pounds
Weight		1.1 ounces (28 grams)



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05-11-07 Rev. 4

HS24035 — HS24045

Figure 1
Typical Forward Characteristics

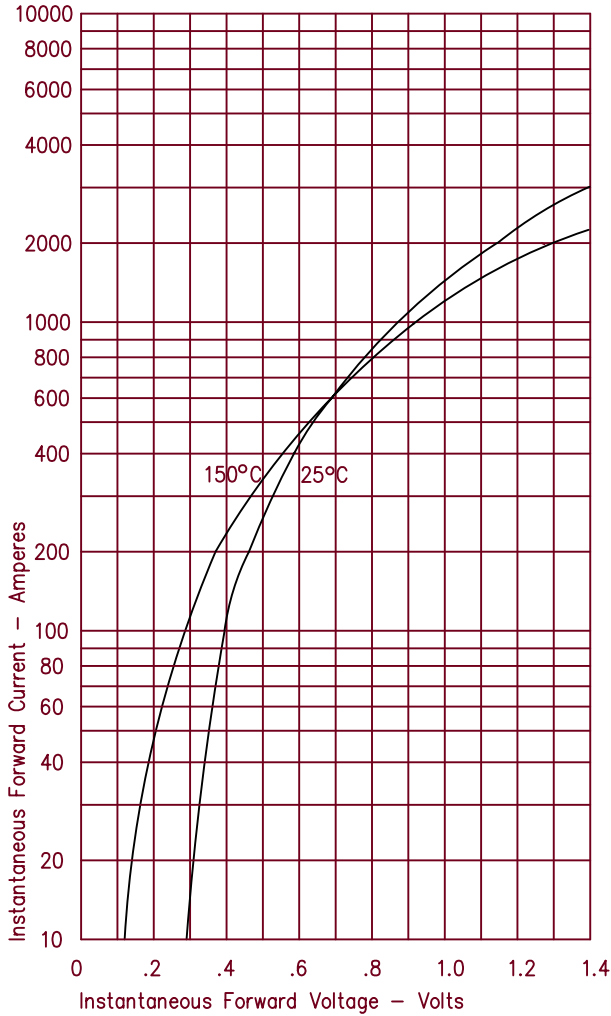


Figure 3
Typical Junction Capacitance

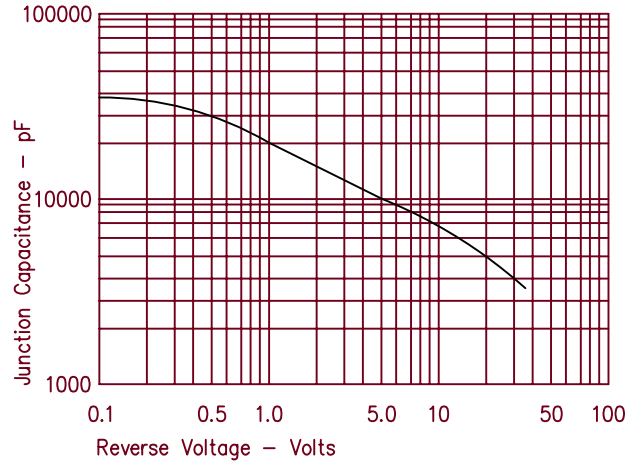


Figure 4
Forward Current Derating

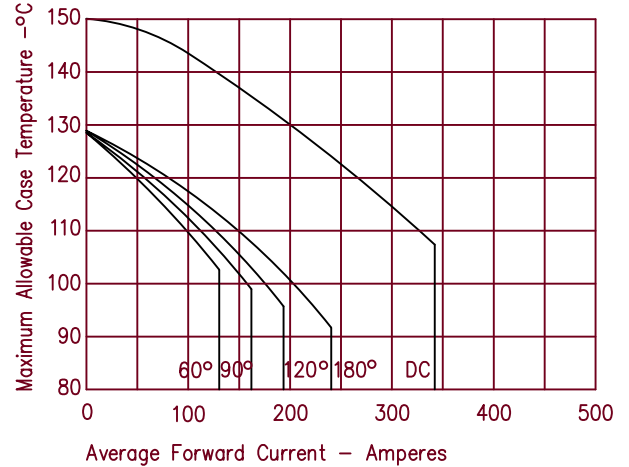


Figure 2
Typical Reverse Characteristics

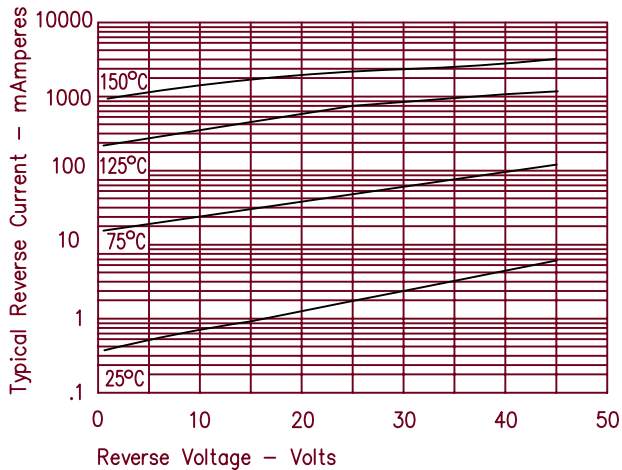


Figure 5
Maximum Forward Power Dissipation

