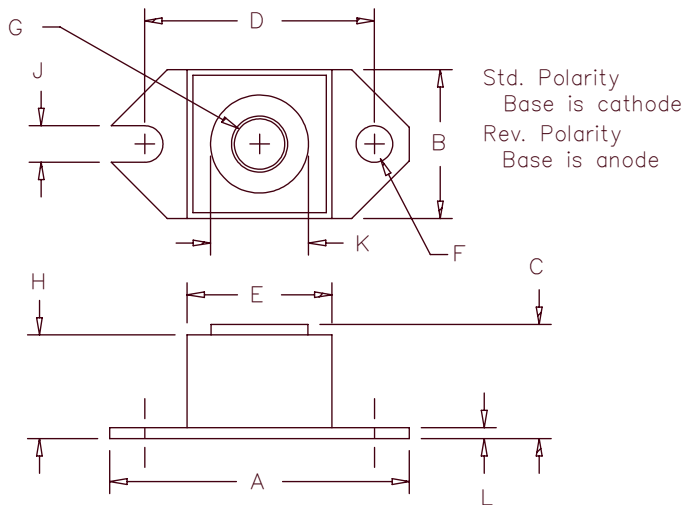


# 240 Amp Schottky Rectifier HS24035 – HS24045



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
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
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
- ROHS Compliant

## Electrical Characteristics

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

\*Pulse test: Pulse width 300μsec, Duty cycle 2%

## Thermal and Mechanical Characteristics

Storage temp range	T <sub>STG</sub>	-55°C to 175°C
Operating junction temp range	T <sub>J</sub>	-55°C to 150°C
Maximum thermal resistance	R <sub>θJC</sub>	0.24°C/W Junction to case
Typical thermal resistance (greased)	R <sub>θCS</sub>	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)

# HS24035 – HS24045

Figure 1  
Typical Forward Characteristics

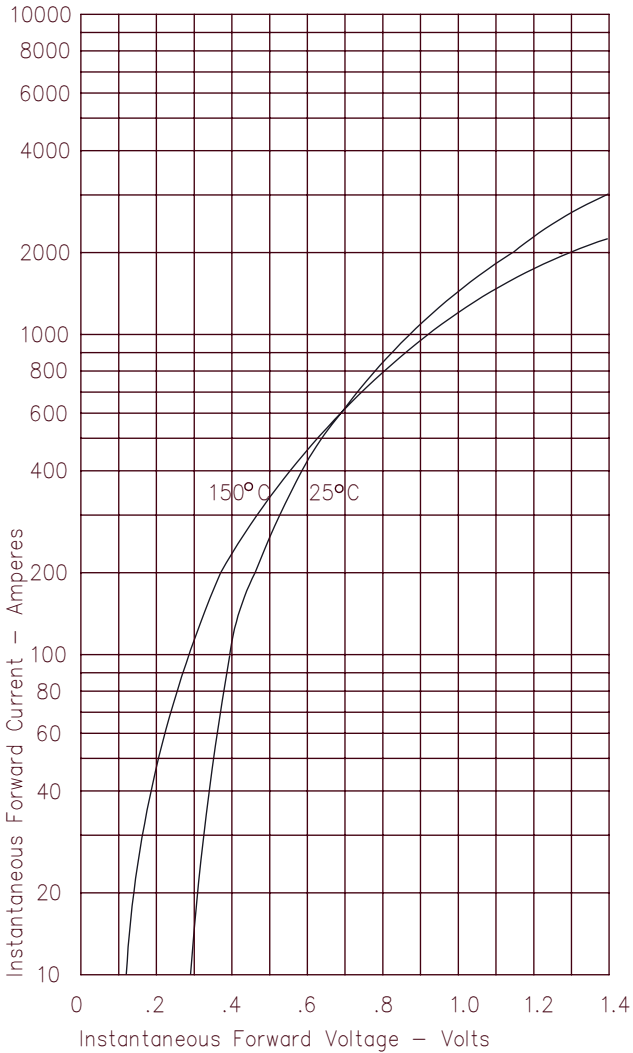


Figure 3  
Typical Junction Capacitance

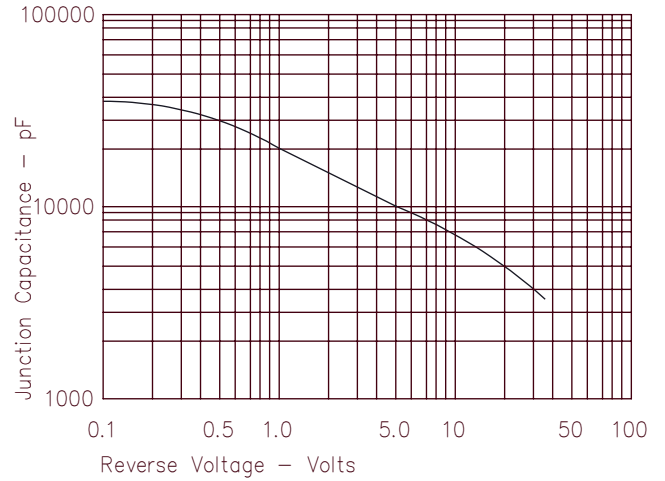


Figure 4  
Forward Current Derating

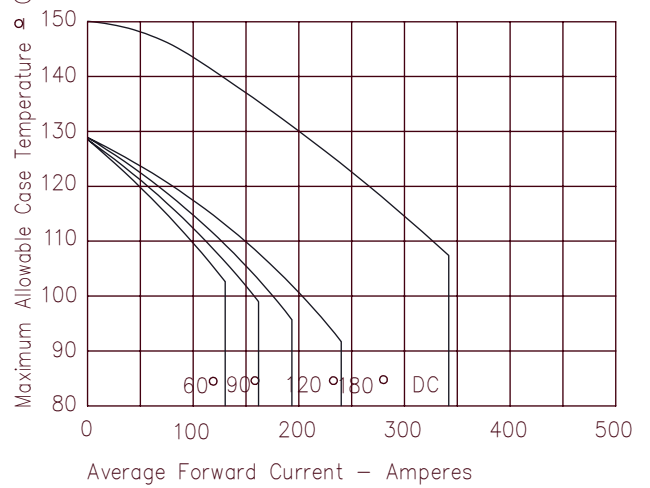


Figure 2  
Typical Reverse Characteristics

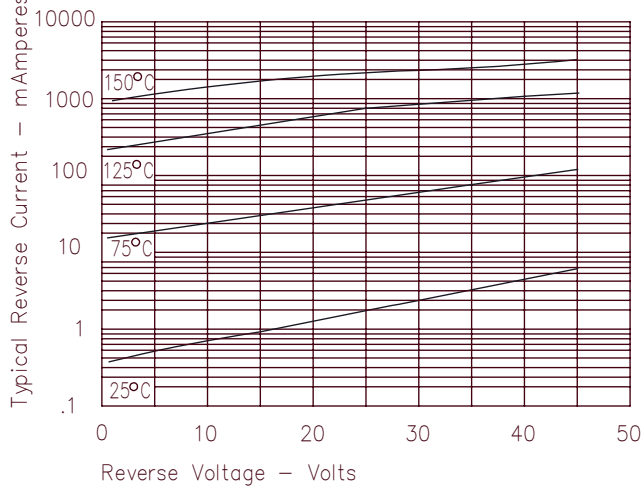


Figure 5  
Maximum Forward Power Dissipation

