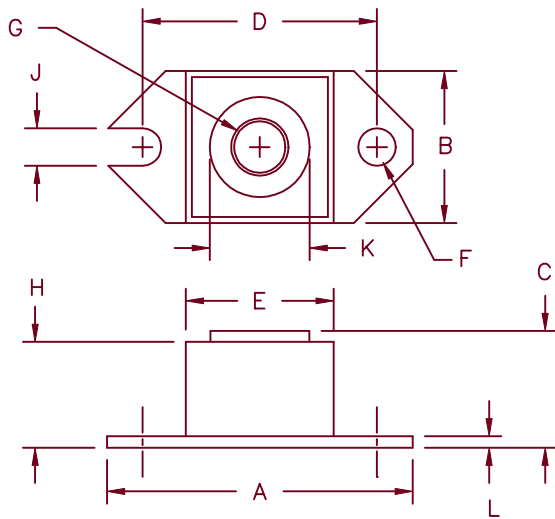


240 Amp Schottky Rectifier HS24035 – HS24045



| 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 Reverse Voltage | Peak Reverse Voltage | Repetitive Peak Reverse Voltage |
|--------------------------|--|-------------------------|----------------------|---------------------------------|
| HS24035* | 240NQ035, 244NQ035 MBRP20035L, MBRP30035L MBR24035 | 35V | 35V | 35V |
| HS24040* | 240NQ040, 244NQ040 MBR24040 | 40V | 40V | 40V |
| HS24045* | 240NQ045, 244NQ045 MBR24045 | 45V | 45V | 45V |

*Add suffix R for Reverse Polarity

- Schottky Barrier Rectifier
- Guard ring protection
- Low forward voltage
- V_{RRM} – 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 _R = 5.0V, T _J = 25°C |
| Max peak reverse current | I _{RM} 12 mA | V _R = 5.0V, T _J = 25°C |
| Typical junction capacitance | C _J 10500 pF | |

*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) |

HS24035 — HS24045

Figure 1
Typical Forward Characteristics

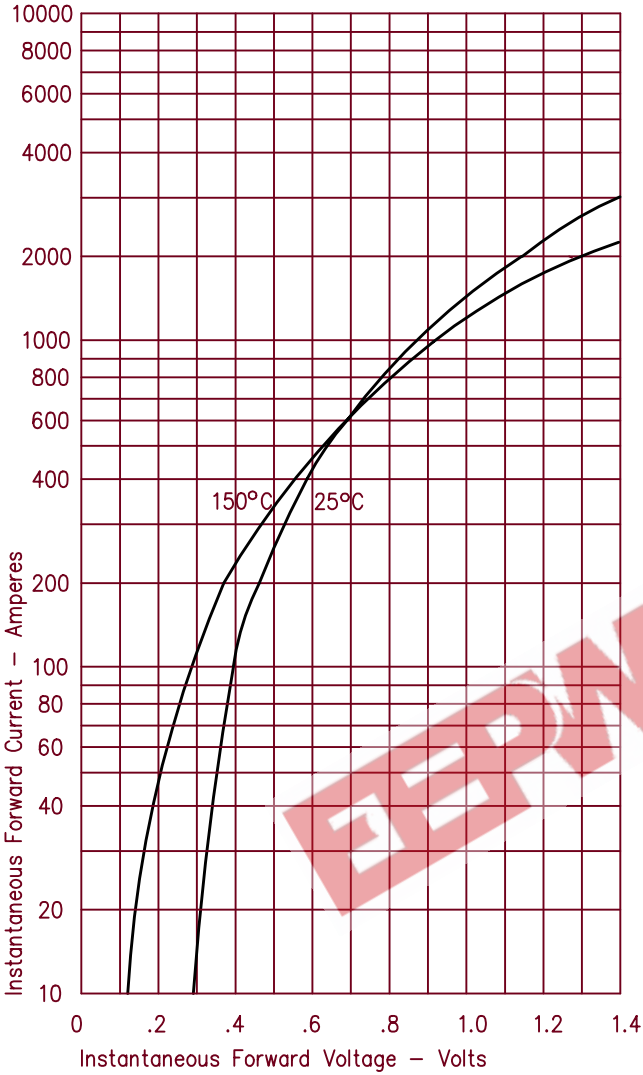


Figure 3
Typical Junction Capacitance

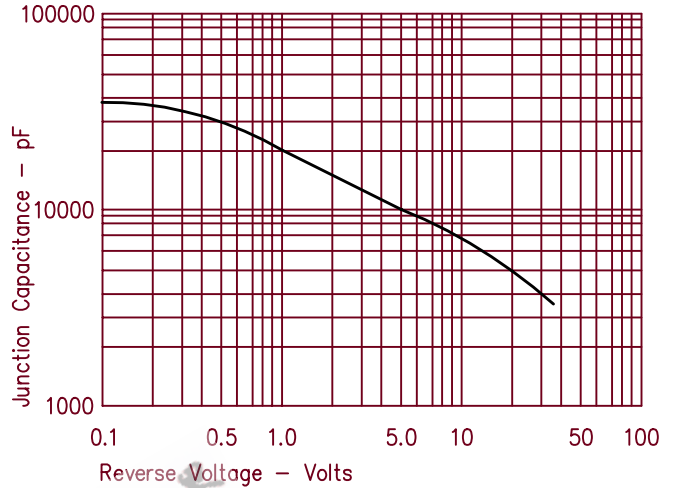


Figure 4
Forward Current Derating

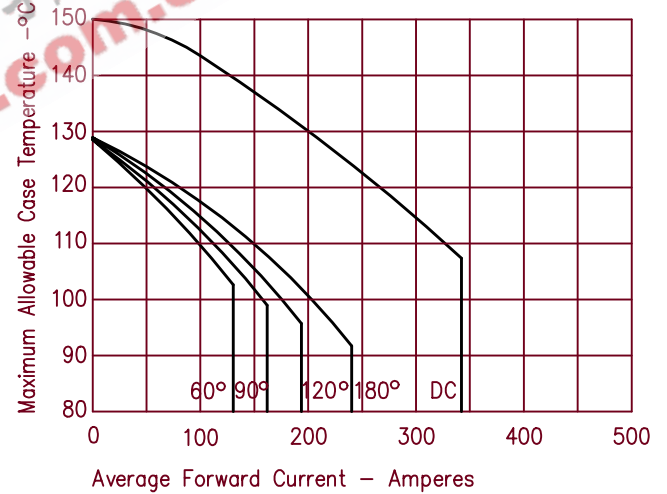


Figure 2
Typical Reverse Characteristics

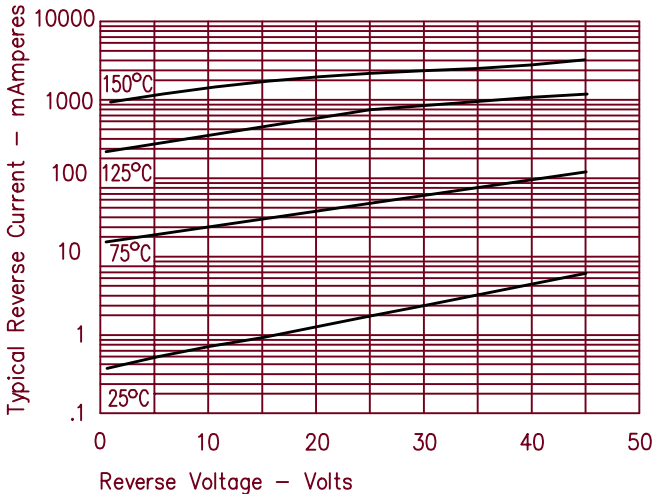


Figure 5
Maximum Forward Power Dissipation

