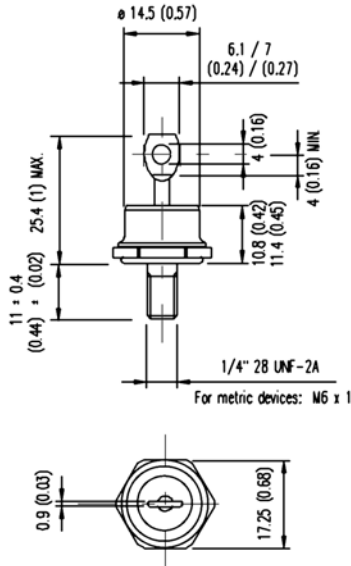




# SBR7035 thru SBR7045

70 Amps Schottky Rectifiers

## Outlines Table



70HF(R)

Case Style DO-203AB (DO-5)  
All dimensions in millimeters (inches)



case style  
DO-203AB (DO-5)

|         | Working peak reverse voltage | Repetitive peak reverse voltage |
|---------|------------------------------|---------------------------------|
| SBR7035 | 35V                          | 35V                             |
| SBR7045 | 45V                          | 45V                             |

- \* Schottky barrier rectifier
- \* Low forward voltage
- \* 150°C junction temperature
- \* Guard ring protection
- \* Reverse energy tested
- \* Add suffix R for reverse polarity

## Electrical Characteristics

|   |                     |   |
|---|---------------------|---|
| Average forward current                 | $I_{F(AV)}$ 70 Amps | $T_C = 92^\circ\text{C}$ , square wave, $R_{\theta JC} = 0.9^\circ\text{C/W}$ |
| Maximum surge current                   | $I_{FSM}$ 1000 Amps | 8.3 ms, half sine, $T_J = 125^\circ\text{C}$                                  |
| Maximum repetitive peak reverse current | $I_{F(OV)}$ 2 Amps  | $f = 1\text{KHz}$ , $25^\circ\text{C}$ , 1 $\mu\text{Sec}$ square wave        |
| Maximum peak forward voltage            | $V_{FM}$ 0.58 Volt  | $I_{FM} = 60\text{A}$ ; $T_J = 125^\circ\text{C}$ *                           |
| Maximum peak forward voltage            | $V_{FM}$ 0.60 Volt  | $I_{FM} = 60\text{A}$ ; $T_J = 25^\circ\text{C}$ *                            |
| Maximum peak reverse current            | $I_{RM}$ 500 mA     | $V_{RRM}$ , $T_J = 125^\circ\text{C}$ *                                       |
| Maximum peak reverse current            | $I_{RM}$ 2.0 mA     | $V_{RRM}$ , $T_J = 25^\circ\text{C}$  |
| Maximum junction capacitance            | $C_J$ 2700 pF       | $V_R = 5.0\text{V}$ , $T_J = 25^\circ\text{C}$                                |

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

## Thermal and Mechanical Characteristics

|                                      |  |
|--------------------------------------|--|
| Storage temp range                   | $T_{STG}$ -65°C to 150°C                 |
| Operating junction temp range        | $T_J$ -65°C to 150°C                     |
| Maximum thermal resistance           | $R_{\theta JC}$ 0.9°C/W Junction to case |
| Typical thermal resistance (greased) | $R_{\theta CS}$ 0.5°C/W Junction to case |
| Maximum mounting torque              | 25-30 inch pounds                        |
| Weight                               | 0.54 ounce (15.3 grams) typical          |

# RATINGS AND CHARACTERISTIC CURVES

Figure 1  
Typical Forward Characteristics

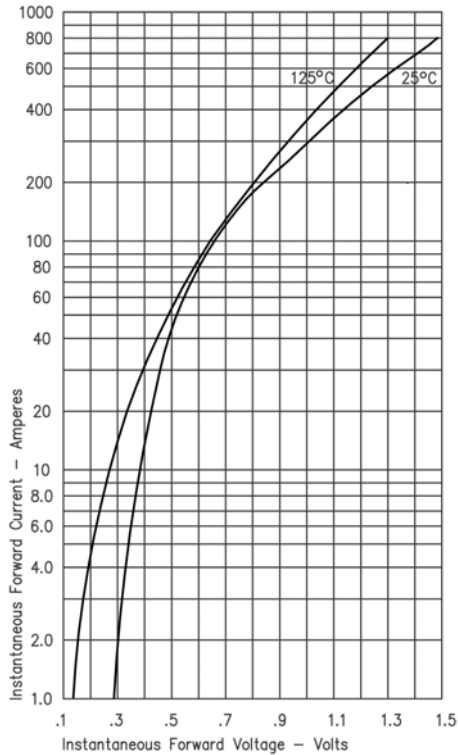


Figure 3  
Typical Junction Capacitance

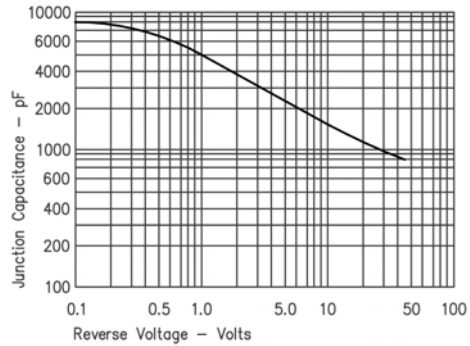


Figure 4  
Forward Current Derating

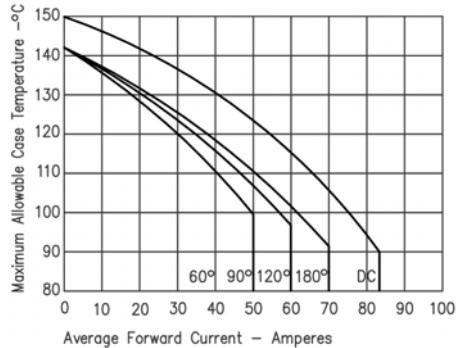


Figure 2  
Typical Reverse Characteristics

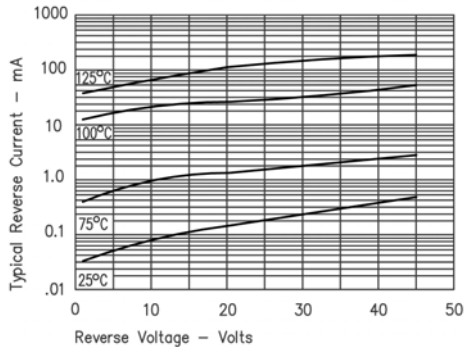


Figure 5  
Maximum Forward Power Dissipation

