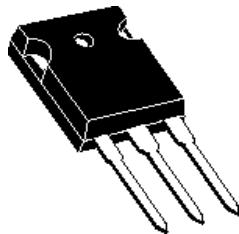
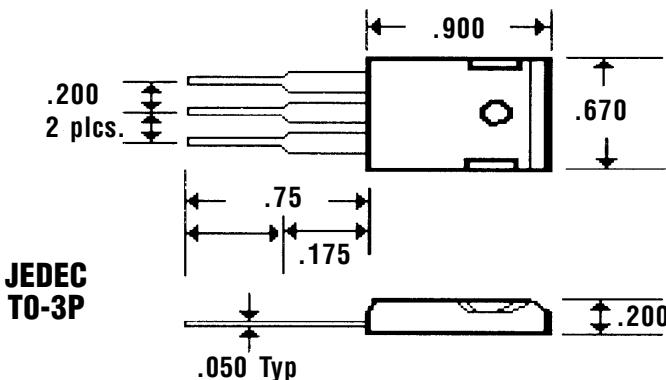


# 60 Amp High Voltage SCHOTTKY BARRIER RECTIFIERS

## Description



## Mechanical Dimensions



## Features

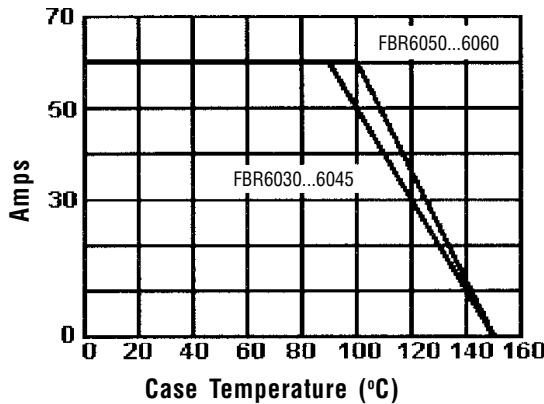
- **HIGH CURRENT CAPABILITY WITH LOW  $V_F$**
- **HIGH EFFICIENCY w/LOW POWER LOSS**
- **HIGH SURGE VOLTAGE AND TRANSIENT PROTECTION**
- **MEETS UL SPECIFICATION 94V-0**

| <b>Electrical Characteristics @ 25°C.</b>  | <b>FBR6030 . . . 6060 Series</b>                       |                |         |         |         |         | <b>Units</b> |
|--|--|----------------|---------|---------|---------|---------|--------------|
| <b>Maximum Ratings</b>   | <b>FBR6030 FBR6035 FBR6040 FBR6045 FBR6050 FBR6060</b> |                |         |         |         |         |              |
| Peak Repetitive Reverse Voltage... $V_{RRM}$   | 30   | 35             | 40      | 45      | 50      | 60      | Volts        |
| Working Peak Reverse Voltage... $V_{RWM}$  | 30   | 35             | 40      | 45      | 50      | 60      | Volts        |
| DC Blocking Voltage... $V_{DC}$  | 30   | 35             | 40      | 45      | 50      | 60      | Volts        |
| RMS Reverse Voltage... $V_R$ (rms)   | 21   | 24             | 28      | 31      | 35      | 42      | Volts        |
| Average Forward Rectified Current... $I_o$<br>@ $T_c = 110^\circ\text{C}$ $V_R$ (equiv.) < $0.2V_{R(DC)}$                      | ..... 60 .....   |                |         |         |         |         | Amps         |
| Non-Repetitive Peak Forward Surge Current... $I_{FSM}$<br>@ Rated Load Conditions, $\frac{1}{2}$ Sine Wave, Single Phase, 60Hz | ..... 600 .....  |                |         |         |         |         | Amps         |
| Forward Voltage... $V_F$<br>@ $I_F = 30$ Amps  | < .....  | .65            | ..... > | < ..... | .75     | ..... > | Volts        |
| DC Reverse Current... $I_R$<br>@ Rated DC Blocking Voltage   | $T_c = 25^\circ\text{C}$                               | ..... 10 ..... |         |         |         |         |              |
|  | $T_c = 125^\circ\text{C}$                              | < .....        | 100     | ..... > | < ..... | 150     | ..... >      |
| Operating & Storage Temperature Range... $T_J, T_{STRG}$   | ..... -65 to 150 .....                                 |                |         |         |         |         | °C           |

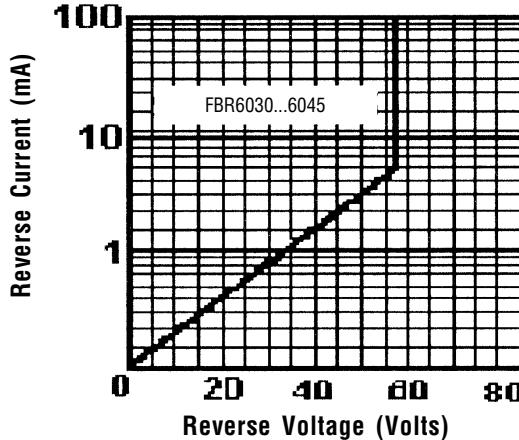
# 60 Amp High Voltage SCHOTTKY BARRIER RECTIFIERS

**FBR6030 ... 6060 Series**

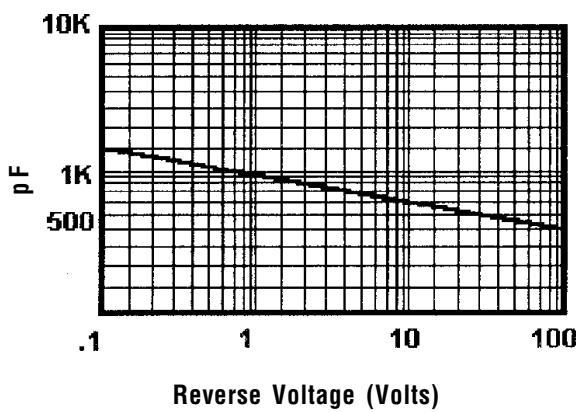
**Forward Current Derating Curve**



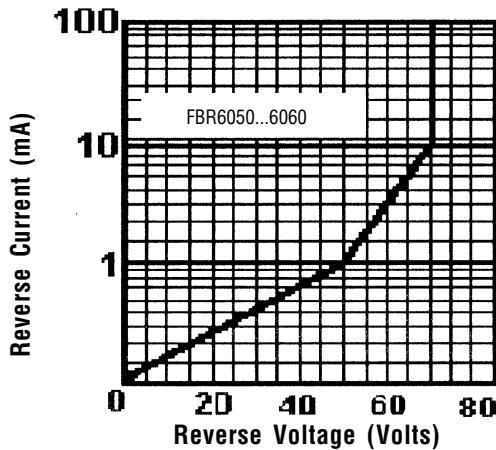
**Typical Reverse Characteristics**



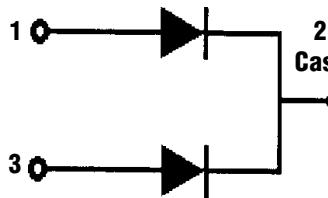
**Typical Junction Capacitance**



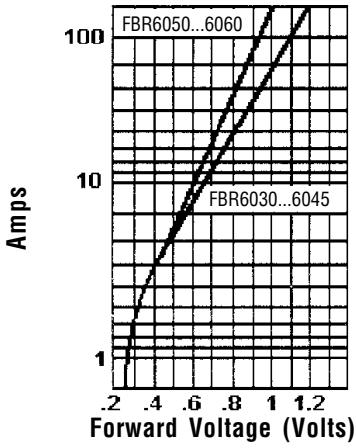
**Typical Reverse Characteristics**



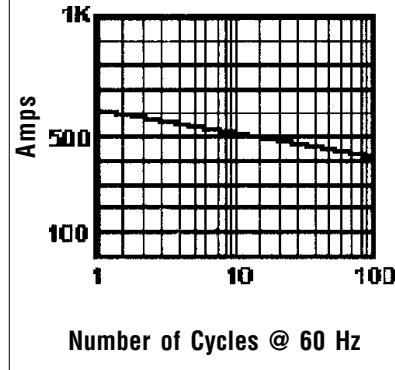
**Common Cathode,  
Suffix "C"**



**Typical Forward Characteristics**



**Peak Forward Surge Current**



Ratings at  
25 Deg. C ambient  
temperature  
unless otherwise  
specified.

Single Phase Half  
Wave, 60 HZ  
Resistive or  
Inductive Load.

For Capacitive  
Load, Derate  
Current by 20%.

- NOTES:**
1. Measured @ 1 MHZ and applied reverse voltage of 4.0V.
  2. Thermal Resistance Junction to Case, Jedec Method.
  3. When Mounted to heat sink, from body.