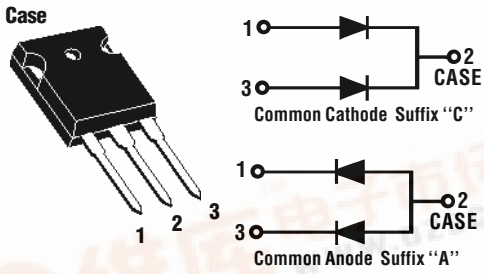
Semiconductor

Data Sheet

50 Amp SCHOTTKY BARRIER RECTIFIERS

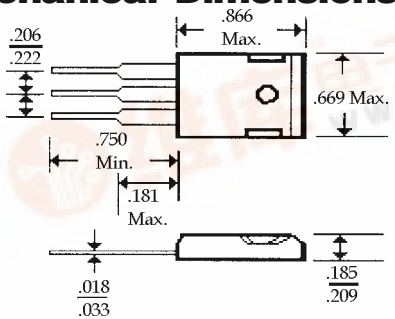
FBR5030...5060 Series

Description



Mechanical Dimensions

JEDEC TO-3P



(Dimensions in inches)

Features

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

	FBR5030 . . . 5060 Series						Units
Maximum Ratings	**FBR5030**	**FBR5035**	**FBR5040**	**FBR5045**	**FBR5050**	**FBR5060**	
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_0 @ T_C = 110°C V_R (equiv.) < = 0.2$V_{R(DC)}$	50						Amps
Non-Repetitive Peak Forward Surge Current...I_{FSM} @ Rated Load Conditions, ½ Sine Wave, Single Phase, 60Hz	500						Amps
Operating & Storage Temperature Range...T_J, T_{STRG}	-65 to 150						°C
Electrical Characteristics							
Maximum Forward Voltage...V_F @ I_F = 25 Amps	< .60 >				< .70 >		Volts
Maximum DC Reverse Current...I_R @ Rated DC Blocking Voltage T_C = 25°C	5.0						mAmps
T_C =125°C	< 100 >				< 150 >		mAmps

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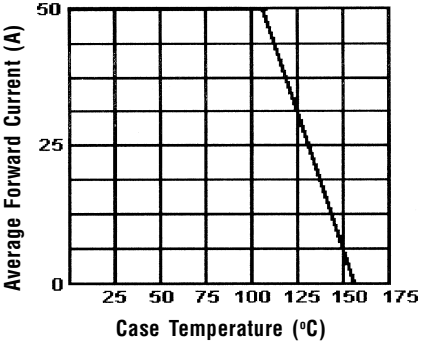
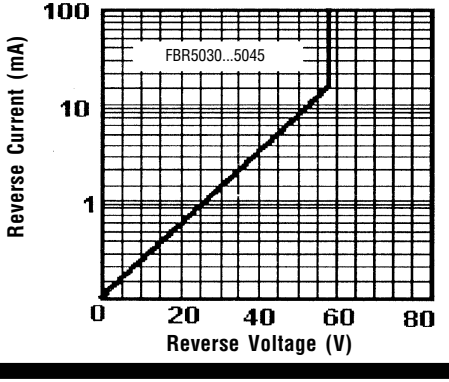
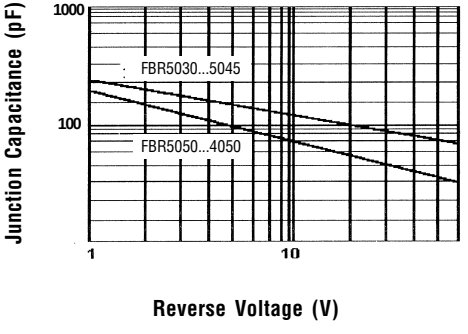
Forward Current Derating Curve



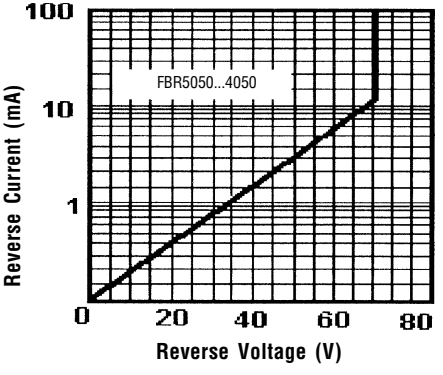
Typical Reverse Characteristics



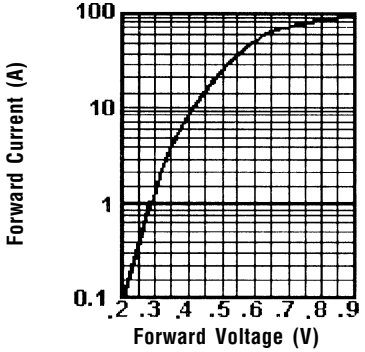
Typical Junction Capacitance



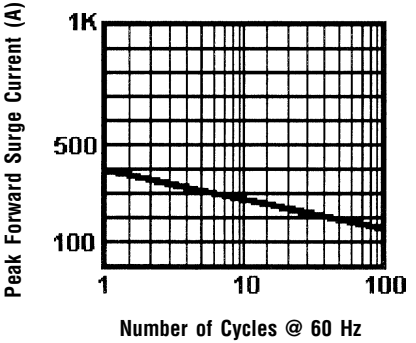
Typical Reverse Characteristics



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%.