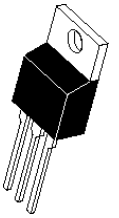
Data Sheet

25 Amp SCHOTTKY BARRIER RECTIFIERS

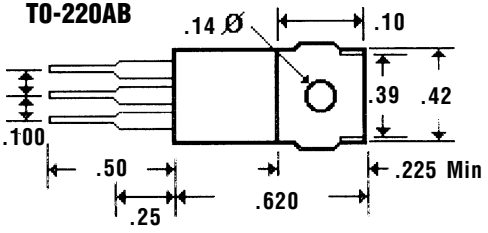
FBR2535CTL & 2545CTL

Description



Mechanical Dimensions

JEDEC TO-220AB



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

Electrical Characteristics @ 25°C.	*FBR2535CTL & 2545CTL*		Units
Maximum Ratings	**FBR2535CTL**	**FBR2545CTL**	
Peak Repetitive Reverse Voltage...V_{RRM}	35	45	Volts
Working Peak Reverse Voltage...V_{RWM}	35	45	Volts
DC Blocking Voltage...V_{DC}	35	45	Volts
Pulse Test 0.5 mS, Duty Cycle 1/140			
Average Forward Rectified Current...$I_{F(av)}$	12.5		Amps
T_C = 110°C (Rated V_R)			
Repetitive Peak Forward Surge Current...I_{FM}	25		Amps
T_C = 95°C (Rated V_R, Square Wave, 20KHZ) Per Leg			
Non-Repetitive Peak Forward Surge Current...I_{FSM}	150		Amps
@ Rated Load Conditions, ½ Sine Wave, Single Phase, 60HZ			
Repetitive Peak Reverse Surge Current...I_{RSM}	1.0		Amps
@ 2uS PW, F = 1.0 KHZ			
Forward Voltage...V_F			
Per Leg, 300uS, 2% Duty Cycle @ I_F = 25 Amps, 25°C	0.55	0.6	Volts
Per Leg, 300uS, 2% Duty Cycle @ I_F = 12.5 Amps, 25°C	0.47	0.52	Volts
Per Leg, 300uS, 2% Duty Cycle @ I_F = 12.5 Amps, 125°C	0.41	0.46	Volts
DC Reverse Current (@ $V_R = V_{RM}$)...I_R			
@ Rated DC Blocking Voltage T_C = 25°C	5.0		mAmps
T_C = 125°C	500		mAmps
T_C = 100°C		500	mAmps
Thermal Resistance, Junction to Case...$R_{\theta JC}$	2.0		°C / W
Voltage Rate of Change (Rated V_R)	1000		V / µS
Controlled Avalanche Energy...W_{AVAL}	20		mJ
Operating Temperature Range...T_J	-65 to 125		°C
Storage Temperature Range...T_{STRG}	-65 to 150		°C

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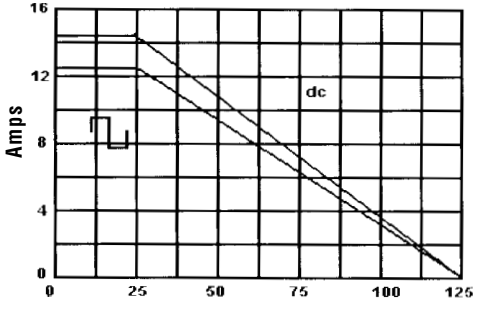
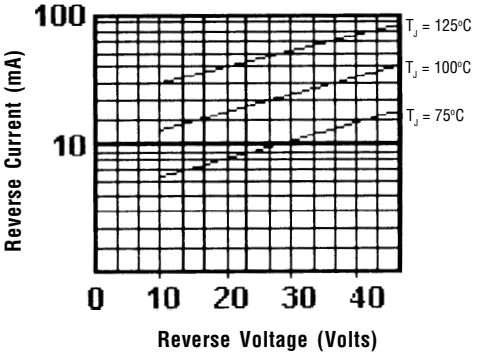
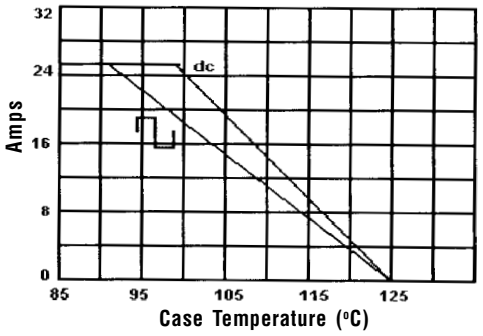
Current Derating, Per Leg



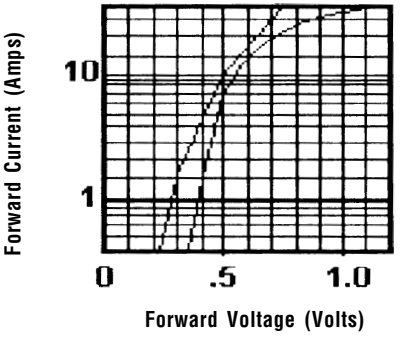
Typical Reverse Current



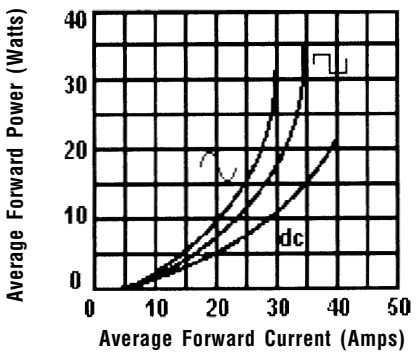
Current Derating



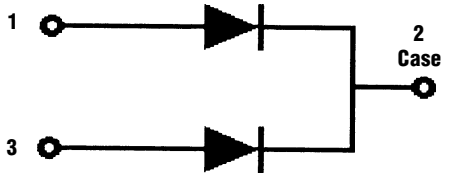
Forward Characteristics



Forward Power Dissipation



Common Cathode, Suffix "C"



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.