

GB330

Description

The GB330 is designed for Low Voltage, High Frequency Inverter, Free Wheeling, and Polarity Protection Application.

Package Dimensions

T0-252

Circuit:

Marking :

EF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.40	6.80	G	0.50	0.70
B	5.20	5.50	H	2.20	2.40
C	6.80	7.20	J	0.45	0.60
D	7.20	7.80	K	0.45	0.60
E	2.30 REF.		L	0.90	1.50
F	0.60	0.90	M	5.40	5.80

Absolute Maximum Ratings

Parameter	Symbol	Ratings	Unit		
Junction Temperature	T_j	-40~+125	°C		
Storage Temperature	T_{stg}	-40~+125	°C		
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	4.7	°C/W		
Typical Junction Capacitance	C_j	290	pF		
Max. Reverse Leakage Current *See Fig. 2 (1)	$T_j = 25^\circ\text{C}$	VR=rated VR	I_{RM}	2	mA
	$T_j = 125^\circ\text{C}$			50	mA
Max. Forward Voltage Drop *See Fig. 1 (1)	@ 3.0A	$T_j = 25^\circ\text{C}$	V_{FM}	0.45	V
	@ 6.0A			0.52	
	@ 3.0A	$T_j = 125^\circ\text{C}$		0.35	
	@ 6.0A			0.46	V
Max. Peak One Cycle Non-Repetitive Surge Current *See Fig. 7	5us Sine or 3us Rect. pulse	Following any rated load condition and with rated VRRM applied	I_{FSM}	535	A
	10ms Sine or 6ms Rect. pulse			90	
Max. Average Forward Current * See Fig. 5	50% duty cycle@ $T_c=134^\circ\text{C}$, Rectangular waveform		I_F	3.5	A
Max. DC Reverse Voltage	$V_{R(RMS)}$	30		30	V
Max. Working Peak Reverse Voltage	V_{RWM}			V	

(1) Pulse Width < 300us, Duty Cycle < 2%

Characteristics Curve

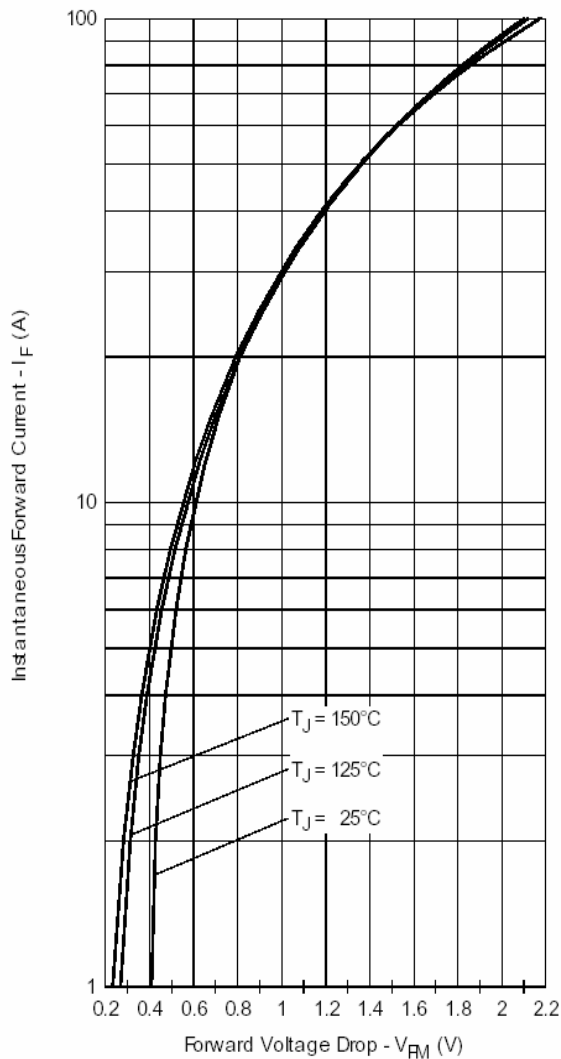


Fig. 1 - Maximum Forward Voltage Drop Characteristics

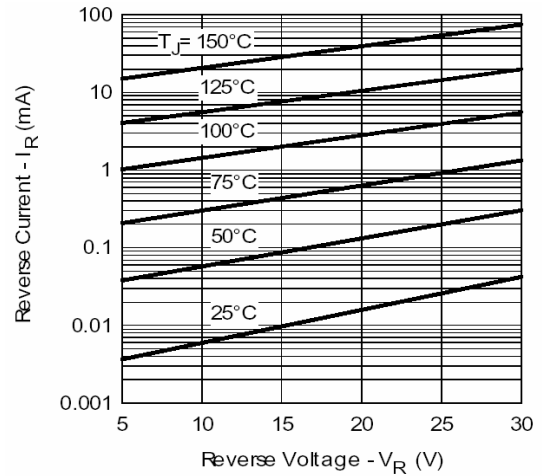


Fig. 2 - Typical Values of Reverse Current Vs. Reverse Voltage

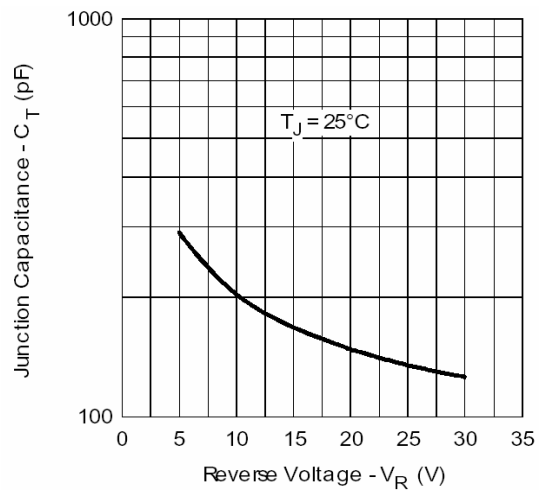


Fig. 3 - Typical Junction Capacitance Vs. Reverse Voltage

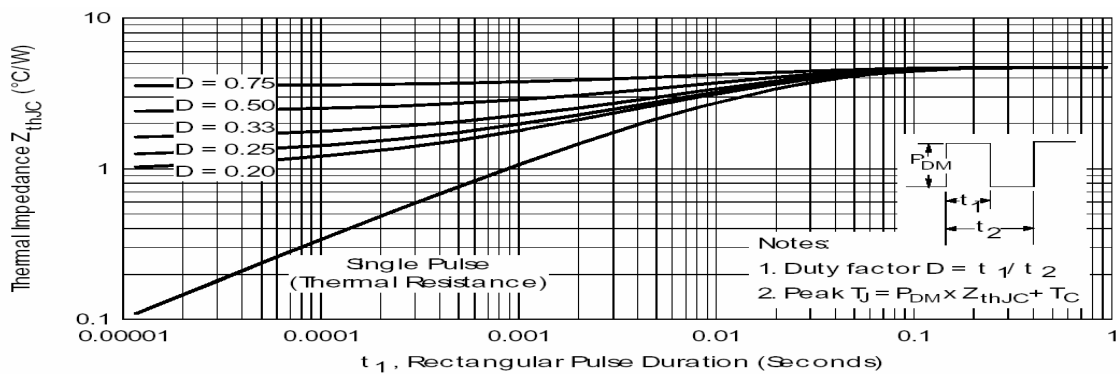


Fig. 4 - Maximum Thermal Impedance Z_{thJC} Characteristics

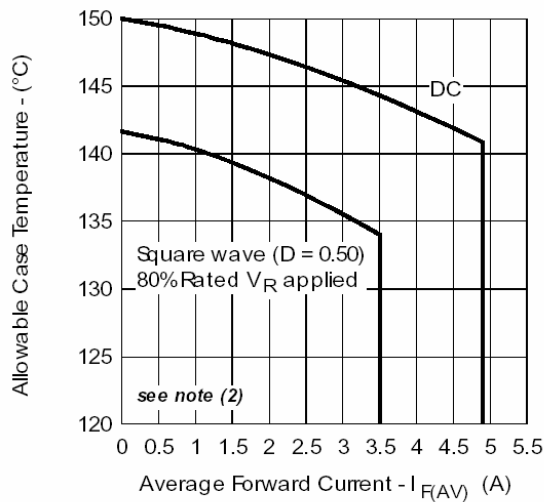


Fig. 5 - Maximum Allowable Case Temperature Vs. Average Forward Current

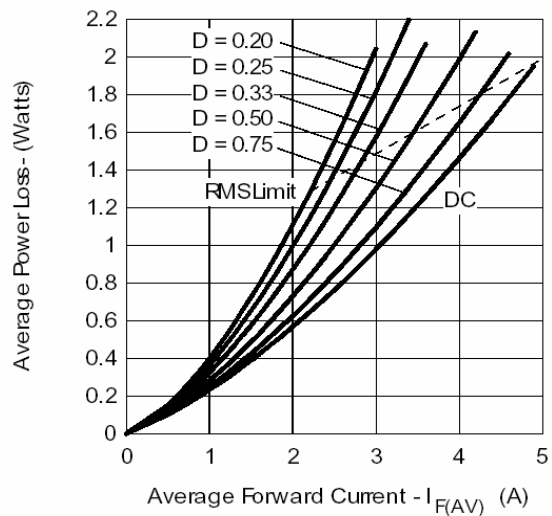


Fig. 6 - Forward Power Loss Characteristics

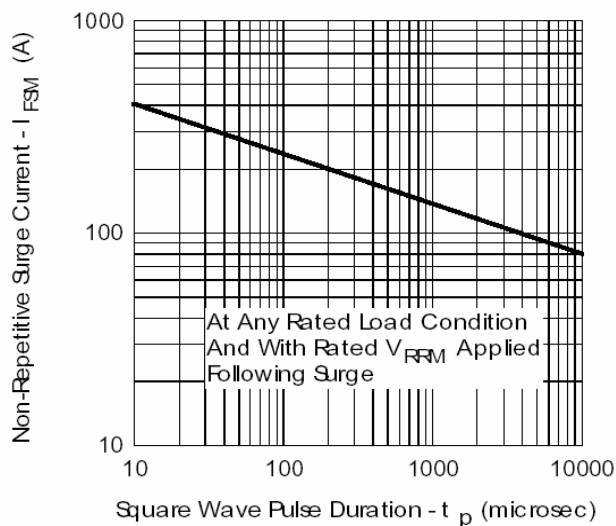


Fig. 7 - Maximum Non-Repetitive Surge Current

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