

Bridge Rectifier



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

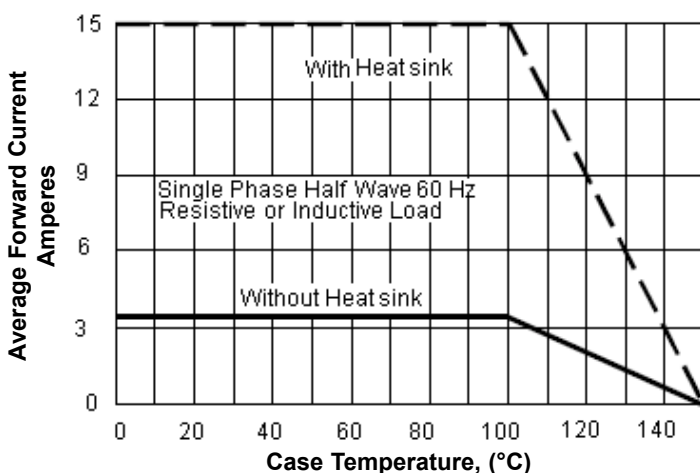
Characteristics	Symbol	GBJ1510	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1,000	V
Maximum RMS Voltage	V_{RMS}	700	
Maximum DC Blocking Voltage	V_{DC}	1,000	
Maximum Average Forward (with heatsink Note 2) Rectified Current at $T_C = 100^\circ\text{C}$ (without heatsink)	$I_{(AV)}$	15 3.2	A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	240	
Maximum Forward Voltage at 7.5 A dc	V_F	1.1	V
Maximum DC Reverse Current at $T_J = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_J = 125^\circ\text{C}$	I_R	10 500	μA
I^2t Rating for Fusing ($t < 8.3$ ms)	I^2t	240	A^2s
Typical Junction Capacitance Per Element (Note1)	C_J	60	pF
Typical Thermal Resistance	$R_{\theta JC}$	0.8	$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}		

Notes: 1. Measured at 1 MHz and applied reverse voltage of 4 V dc.

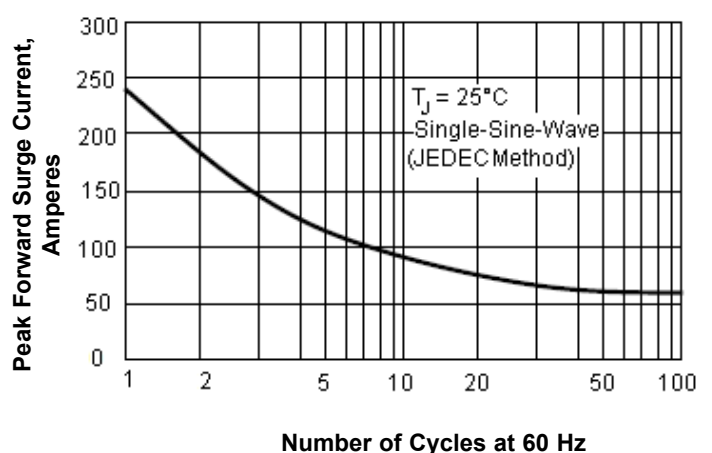
2. Device mounted on 300 × 300 × 1.6 mm Cu plate heatsink.

Rating and Characteristics Curves

Forward Current Derating Curve



Maximum Non-Repetitive Surge Current

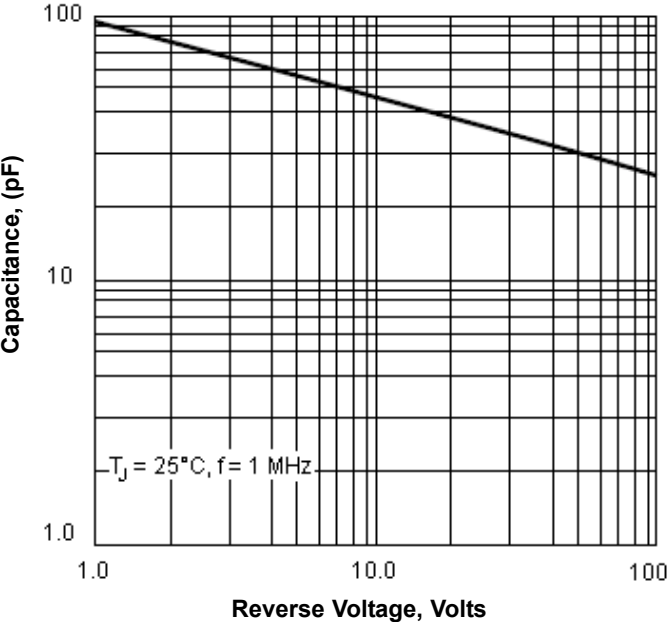


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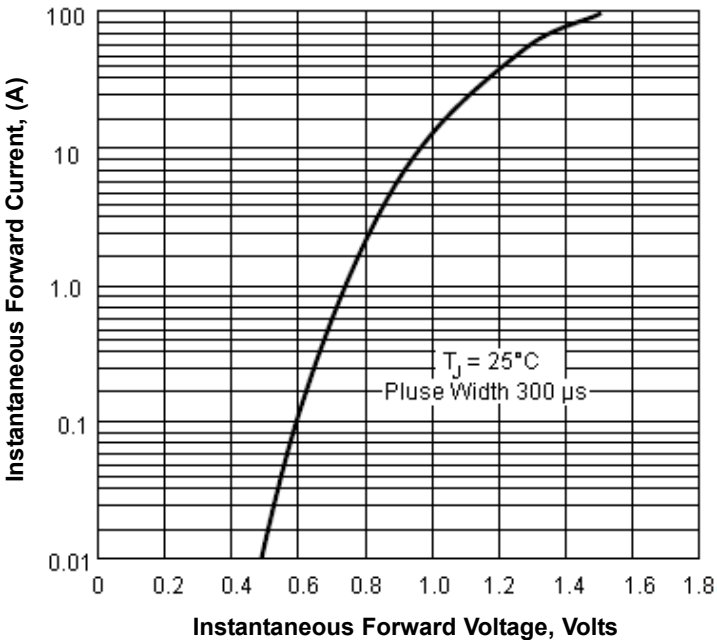


Rating and Characteristics Curves

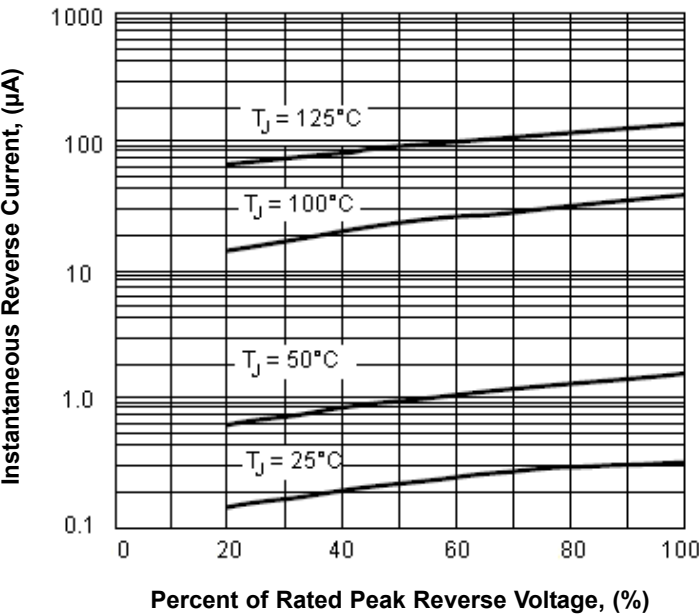
Typical Junction Capacitance



Typical Forward Characteristics



Typical Reverse Characteristics



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