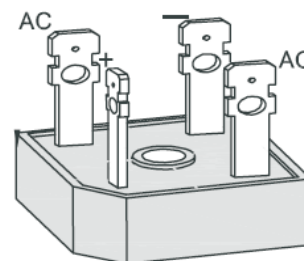


50A Bridge Rectifiers

Features

- Low reverse leakage current
- Low power loss
- High efficiency
- Electrically isolated epoxy case for maximum heat dissipation
- Case to terminal isolated voltage 2500V
- RoHS compliant



TB35



Mechanical Data

Case:	Molded plastic with heat sink, available in both low profile and standard case
Terminals:	Plated faston lugs
Polarity:	As marked on case
Mounting Torque:	20 in. – lbs. max.
Weight:	21 grams

Maximum Ratings And Electrical Characteristics ($T_{amb}=25^{\circ}\text{C}$)

Symbols	Parameter	TB 5005	TB 501	TB 502	TB 504	TB 506	TB 508	TB 510	Unit	Conditions
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
V_{RMS}	Maximum RMS Voltage	35	70	140	280	420	560	700	V	
V_{DC}	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V	
I_{F(AV)}	Maximum Average Forward Rectified Current	50							A	T _A =60°C
I_{FSM}	Peak Forward Surge Current	450							A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
V_F	Maximum Instantaneous Forward Voltage Drop per leg	1.1							V	I _F =25A
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage per leg	5.0							μA	T _C =25°C
		500								T _C =125°C
I_t	Rating for Fusing (1ms<t<8.3ms)	800							A ² S	

50A Bridge Rectifiers

TB5005 - TB510

Symbols	Parameter	TB 5005	TB 501	TB 502	TB 504	TB 506	TB 508	TB 510	Unit	Conditions
C_J	Typical Junction Capacitance	400							pF	V _R =4V, f=1MHz
R_{θJC}	Typical Thermal Resistance per leg	1.6							°C/W	Note 1
V_{ISO}	RMS Isolation Voltage from Case to Leads	2500							V	
T_J, T_{STG}	Operating and Storage Temperature Range	-65 to 150							°C	

Note:

1. Thermal resistance junction to case, mounted on heatsink.
2. Single Phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Rating and characteristic curves

Fig.1- Derating Curve Output Rectified Current

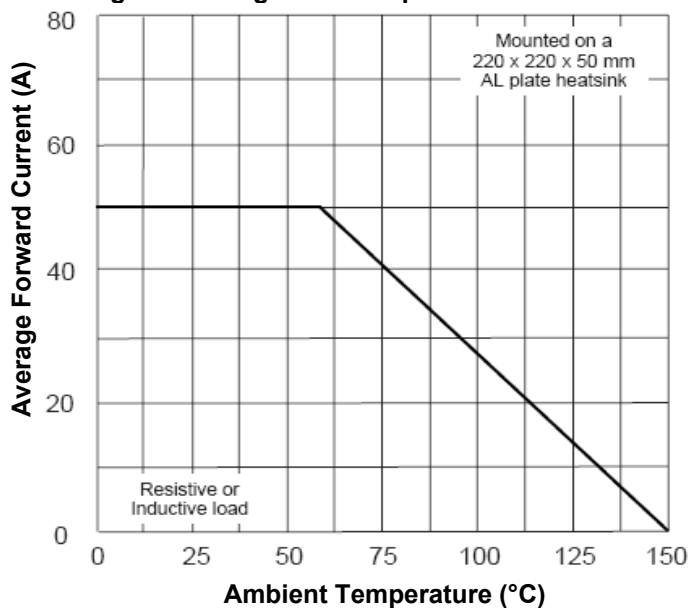


Fig.2-Max Non-Repetitive Peak Forward Surge Current

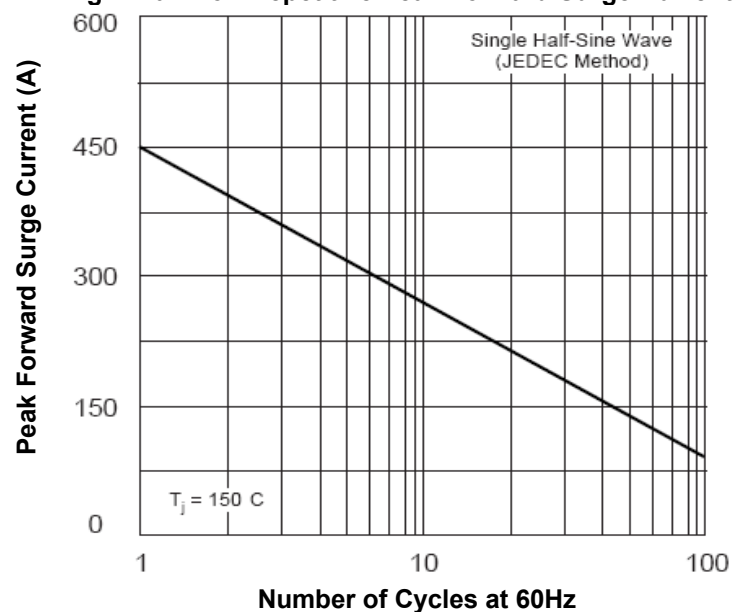


Fig.3- Typical Instantaneous Forward Characteristics, per leg

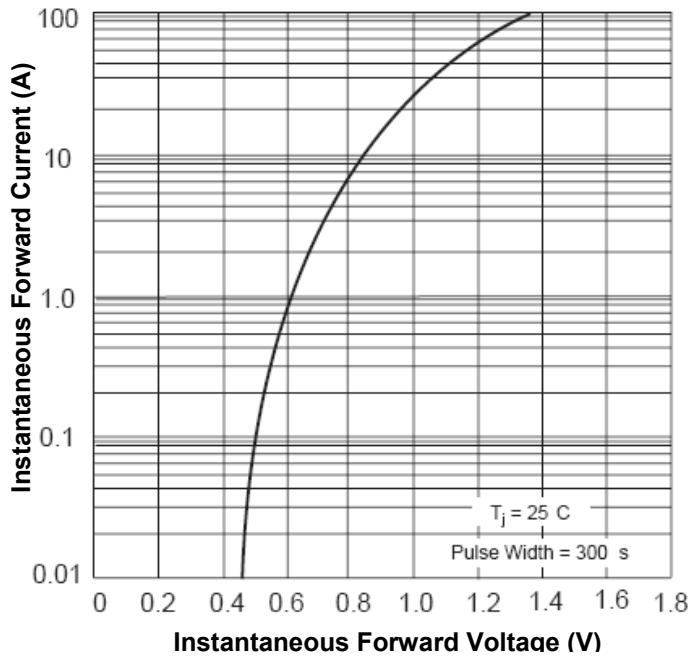


Fig.4-Typical Reverse Leakage Characteristics per leg

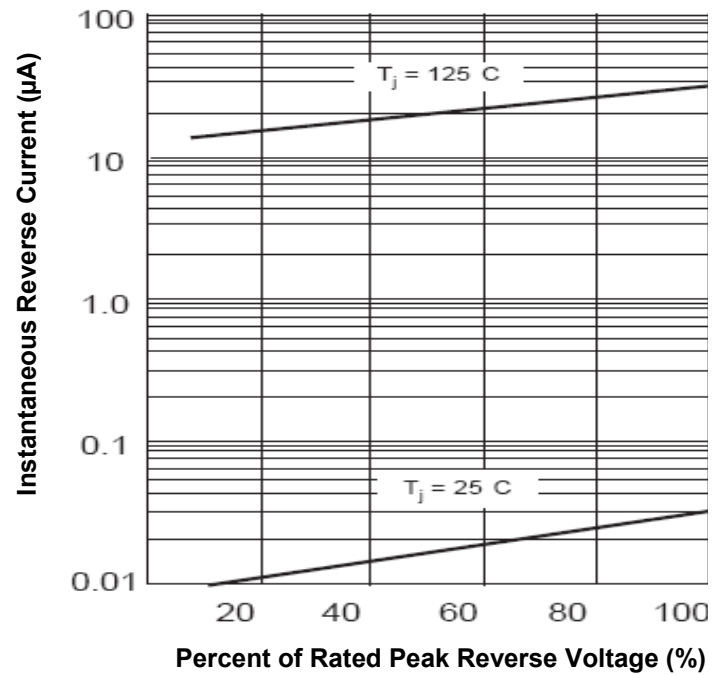
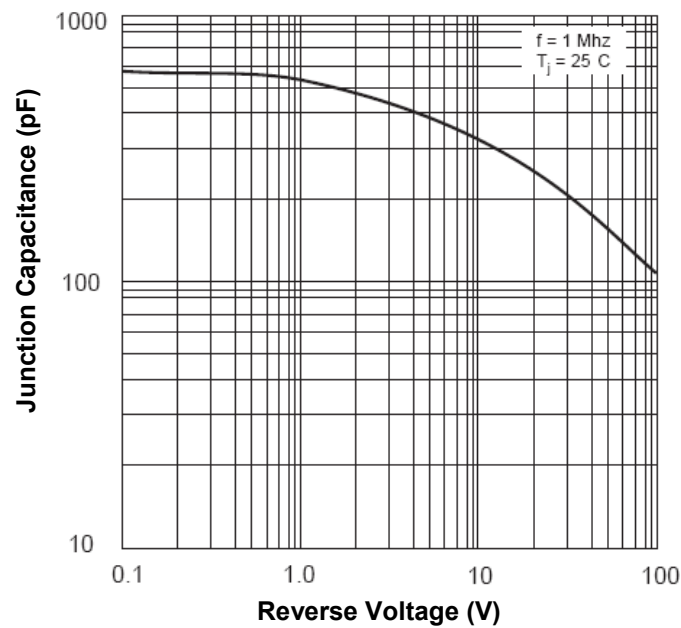


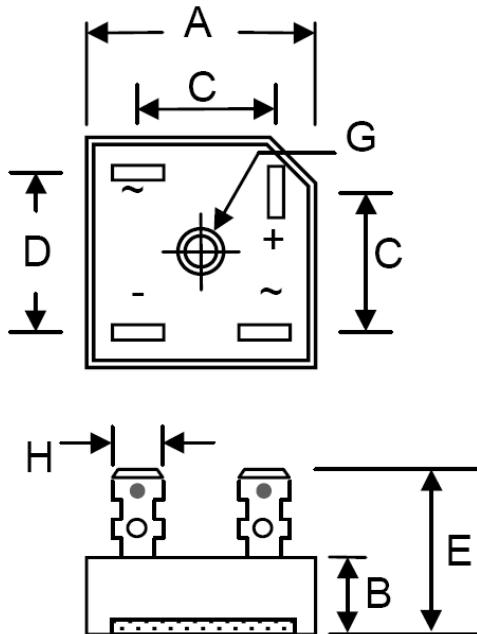
Fig.5-Typical Junction Capacitance per leg



50A Bridge Rectifiers

TB5005 - TB510

Dimensions in mm



Dim	TB35 Low Profile / Standard	
	Min	Max
A	28.40	28.70
B	10.97	11.23
C	15.70	16.70
D	17.50	18.50
E	22.86	25.40
G	Hole for #10 screw, 5.08Ø Nominal	
H	6.35 Typical	

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