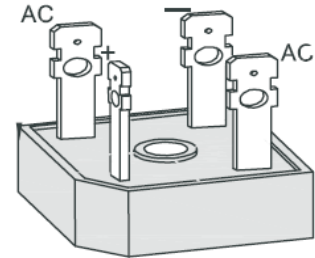


## 50A Bridge Rectifiers

### 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

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

### Maximum Ratings And Electrical Characteristics (T<sub>amb</sub>=25°C)

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

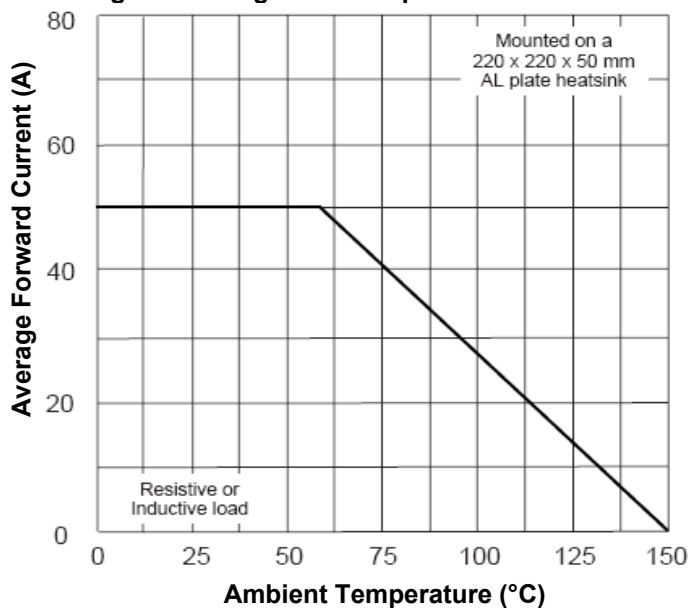
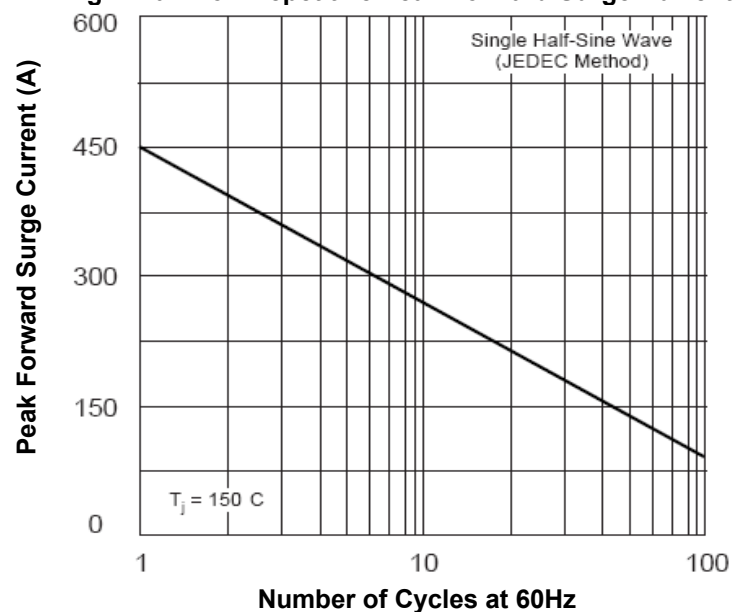
## 50A Bridge Rectifiers

## TB5005 - TB510

Symbols	Parameter	TB 5005	TB 501	TB 502	TB 504	TB 506	TB 508	TB 510	Unit	Conditions
<b>C<sub>J</sub></b>	Typical Junction Capacitance	400							pF	V <sub>R</sub> =4V, f=1MHz
<b>R<sub>θJC</sub></b>	Typical Thermal Resistance per leg	1.6							°C/W	Note 1
<b>V<sub>ISO</sub></b>	RMS Isolation Voltage from Case to Leads	2500							V	
<b>T<sub>J</sub>, T<sub>STG</sub></b>	Operating and Storage Temperature Range	-65 to 150							°C	

**Note:**

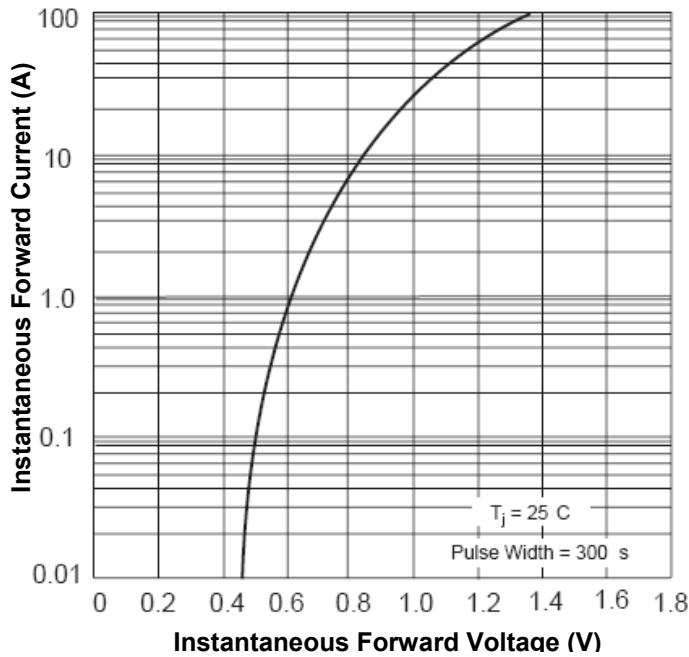
1. Thermal resistance junction to case, mounted on heatsink.
2. Single Phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

**Rating and characteristic curves****Fig.1- Derating Curve Output Rectified Current****Fig.2-Max Non-Repetitive Peak Forward Surge Current**

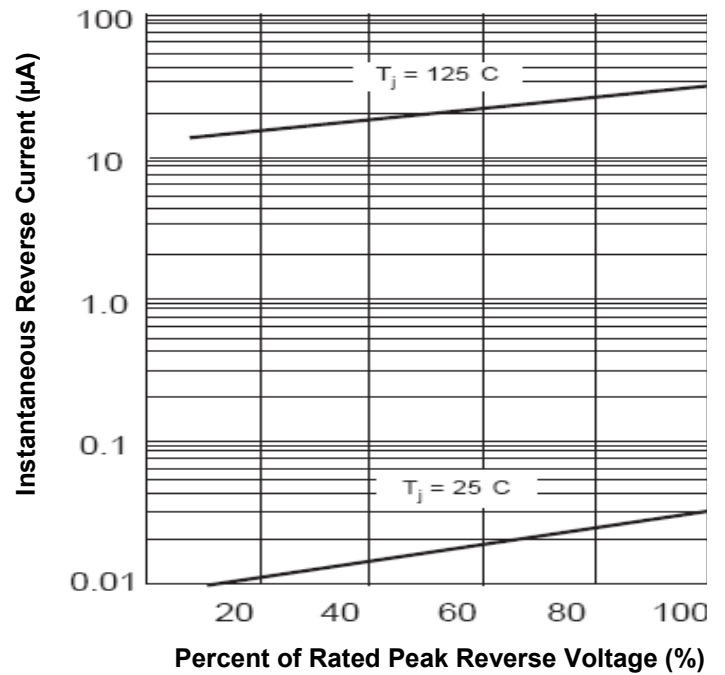
# 50A Bridge Rectifiers

## TB5005 - TB510

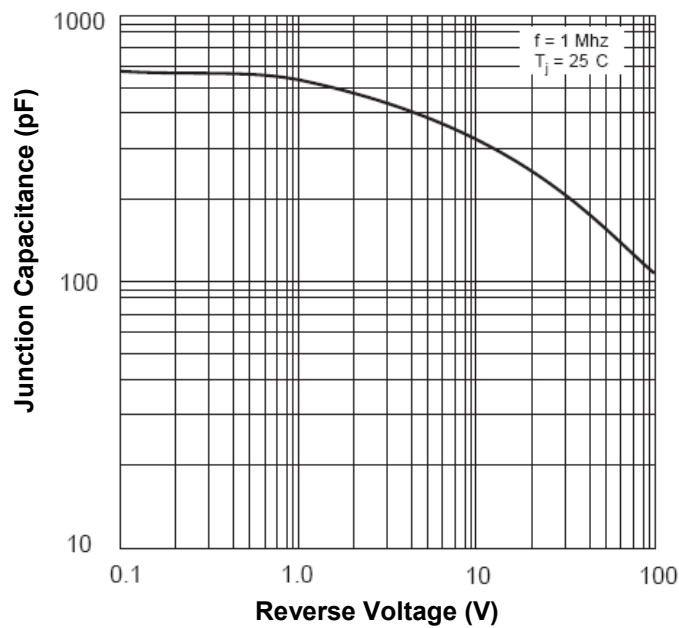
**Fig.3- Typical Instantaneous Forward Characteristics, per leg**



**Fig.4-Typical Reverse Leakage Characteristics per leg**



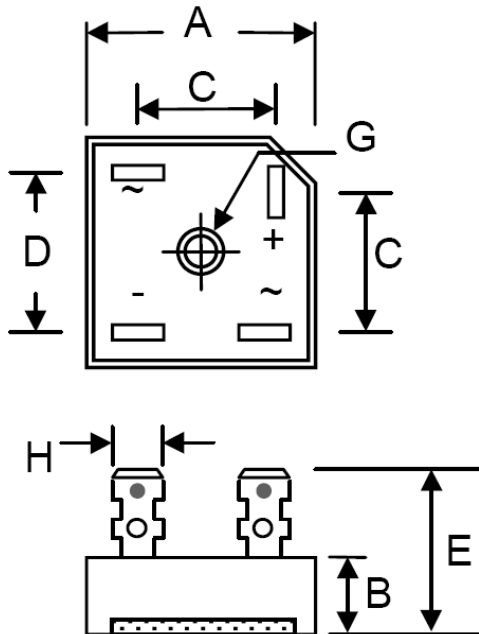
**Fig.5-Typical Junction Capacitance per leg**



## 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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