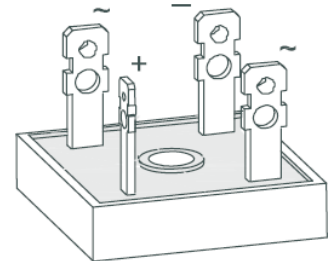


50A Single-Phase Bridge Rectifier

Features

- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Electrically Isolated Metal Case for Max. Heat Dissipation
- Case to Terminal Isolation Voltage 2500V
- This series is UL recognized under component index, File number E194718
- RoHS Compliant



MB35L
(Metal Case)



Mechanical Data

Case:	MB35L Metal case with faston lugs
Terminals:	Plated faston lugs
Polarity:	As marked on case
Mounting:	Through hole with #10 screw
Mounting Torque:	23 cm-kg (20 in-lbs) Max.
Weight:	30 grams

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

Symbol	Description	MB5005	MB501	MB502	MB504	MB506	MB508	MB5010	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 Output Rectified Current	50							A	$T_A=60^{\circ}\text{C}$
I_{FSM}	Peak Forward Surge Current	400							A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)

50A Single-Phase Bridge Rectifier

MB5005 – MB5010

Symbol	Description	MB5005	MB501	MB502	MB504	MB506	MB508	MB5010	Unit	Conditions
V_F	Maximum Instantaneous Forward Voltage drop per leg	1.2							V	$I_F=25A$
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage per leg	10							μA	$T_C=25^{\circ}C$
		1000							μA	$T_C=125^{\circ}C$
I^2t	Rating for fusing ($t<8.3ms$)	664							A^2s	
C_J	Typical Junction Capacitance	300							pF	$V_R=4V, f=1MHz$
R_{thJC}	Typical Thermal Resistance per leg	1.6							$^{\circ}C / W$	Note
V_{ISO}	RMS Isolation Voltage from Case to Leads	2500							V	
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-65 to +150							$^{\circ}C$	

Note: Thermal resistance junction to case, mounted on heatsink.

Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

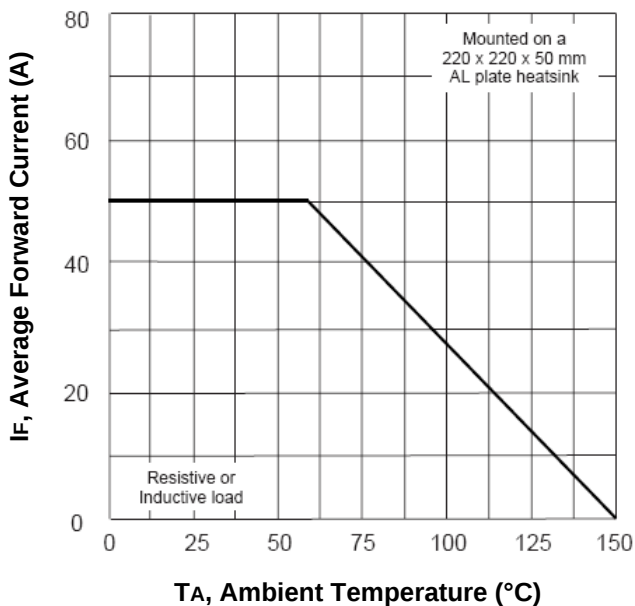
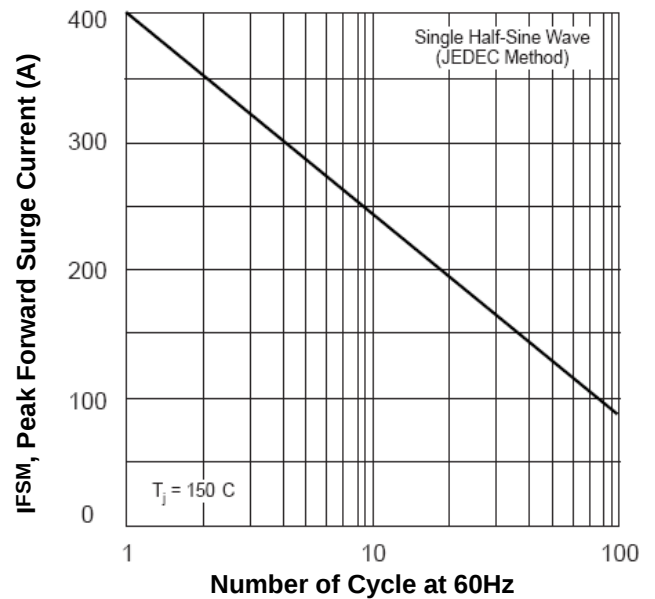


Fig.2-Max. Non-repetitive Peak Forward Surge Current per leg



50A Single-Phase Bridge Rectifier

MB5005 – MB5010

Fig.3-Typical Instantaneous Forward Characteristic per leg

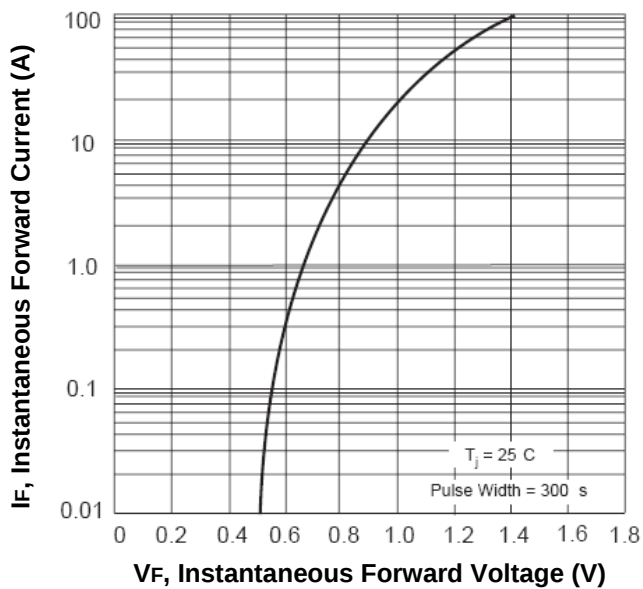


Fig.4-Typical Reverse Characteristics per leg

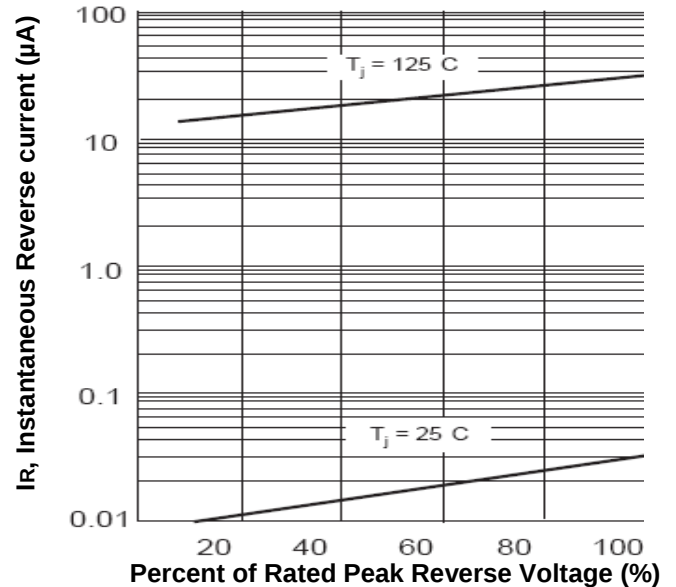
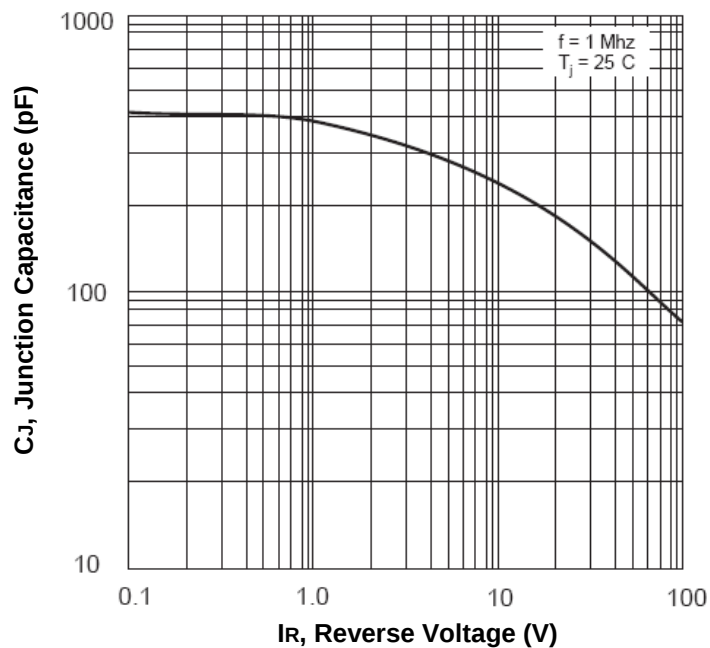


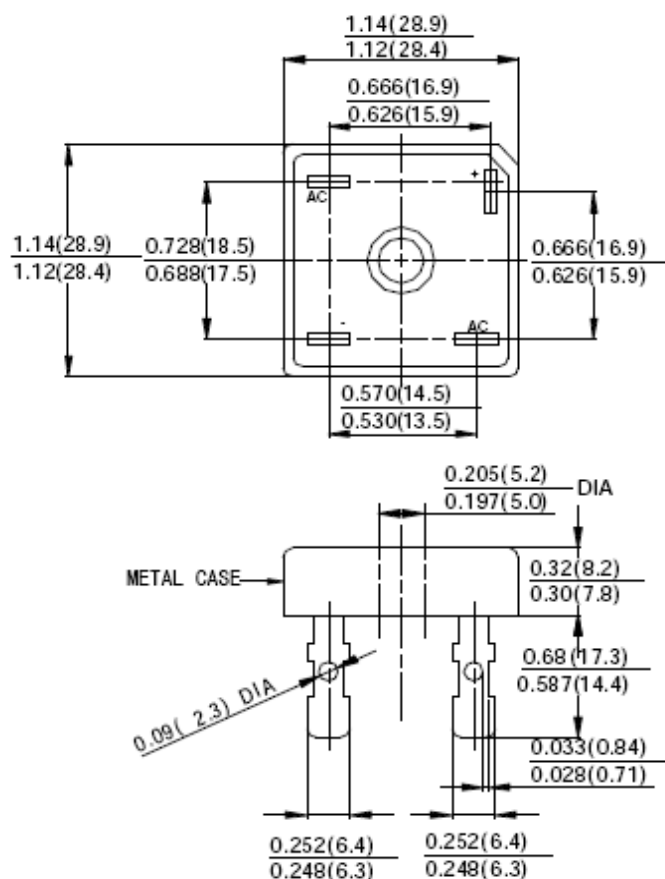
Fig.5-Typical Junction Capacitance per leg



50A Single-Phase Bridge Rectifier

MB5005 – MB5010

Dimensions in inch (mm)



MB35L

50A Single-Phase Bridge Rectifier

MB5005 – MB5010

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