

50A Glass Passivated Bridge Rectifier

Features

- Glass passivated chip junction
- Low reverse leakage current
- Low power loss; high efficiency
- Electrically isolated epoxy case for Max. heat dissipation
- This series is UL recognized under component index, File number E194718
- RoHS Compliant



Mechanical Data

Case:	GBPC35, Molded plastic with heatsink, available in both low profile and standard case
Epoxy:	Plastic package has UL flammability classification 94V-0
Terminals:	Plated faston lugs or wire leads.
Polarity:	As marked on case
Mounting Position	See note 2
Mounting Torque	23 cm·kg (20in.-lbs) Max.
Weight:	21 grams

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

Symbol	Description	GBPC 50-005	GBPC 50-01	GBPC 50-02	GBPC 50-04	GBPC 50-06	GBPC 50-08	GBPC 50-10	Unit	Conditions
VRRM	Max. Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
VRMS	Max. RMS Voltage	35	70	140	280	420	560	700	V	
VDC	Max. DC blocking voltage	50	100	200	400	600	800	1000	V	
IF(AV)	Max. Average Forward Rectified Output Current	50.0							A	$T_c=50^{\circ}C$, See Fig.1
IFSM	Peak Forward Surge Current	450							A	8.3ms single half sine-wave superimposed on rated load (JEDEC method)

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V_F	Max. Instantaneous Forward Voltage drop per leg	1.1	V	I _{F(AV)} =25A
I_R	Max. Reverse DC Current At Rated DC Blocking Voltage per leg	5.0	μA	T _C = 25°C
		500	μA	T _C = 125°C
I²t	Rating for Fusing (1ms<t<8.3ms)	800	A ² s	
C_J	Typical junction capacitance	400	pF	f=1MHz V _R = 4V
R_{thjc}	Typical Thermal Resistance per leg	1.0	°C / W	Note 1
T_J,T_{STG}	Operating Junction and Storage Temperature Range	-65 to +150	°C	

Note: 1. Thermal Resistance from junction to Case per leg.
2. Mounted on 229 x 102 x 117mm Al. finned plate.

Typical Characteristics Curves

Fig.1-Max. Output Rectified Current

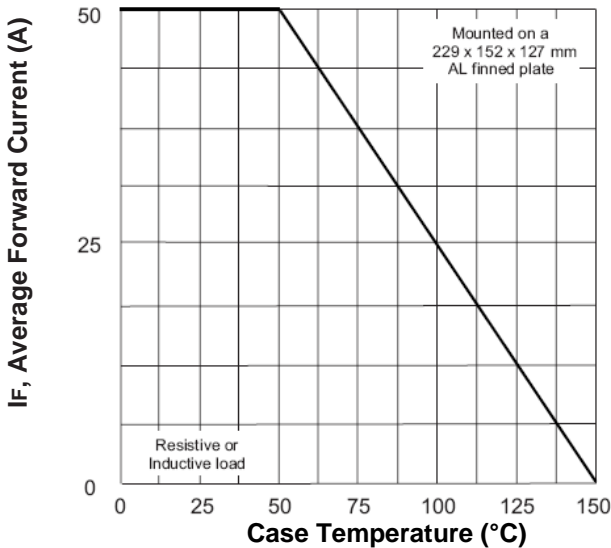
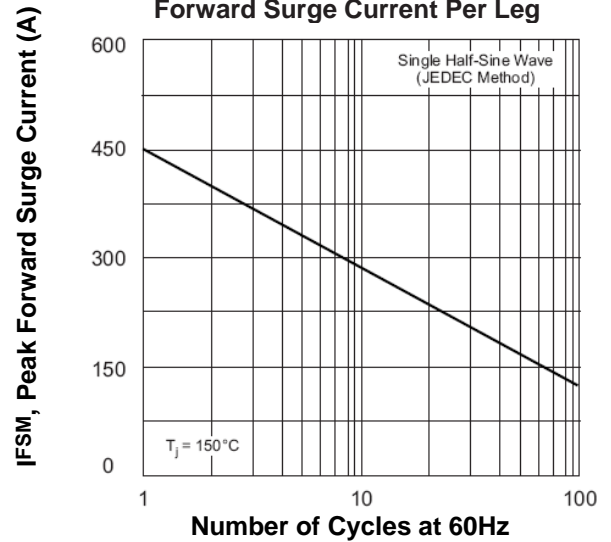


Fig.2-Max. Non-repetitive Peak Forward Surge Current Per Leg



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Fig.3-Typical Instantaneous Forward Characteristic Per Leg

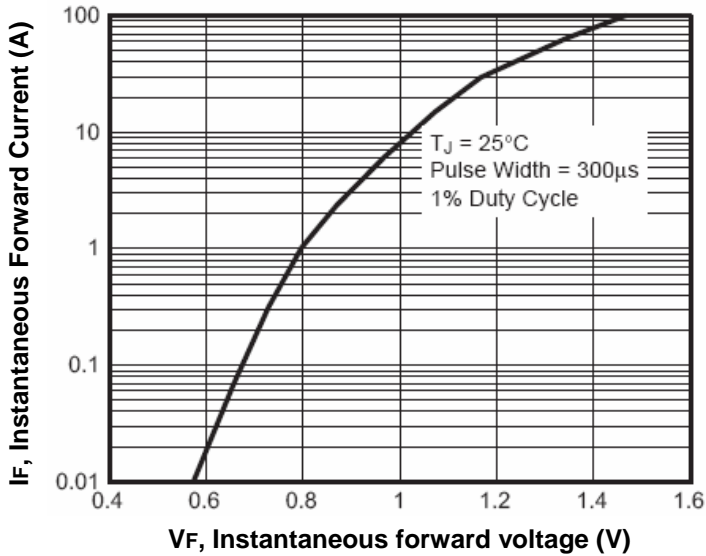


Fig.4-Typical Reverse Characteristics Per Leg

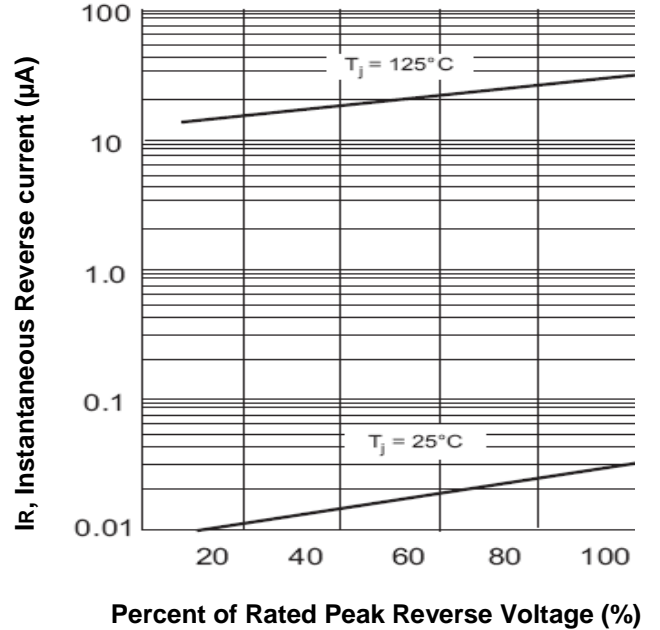
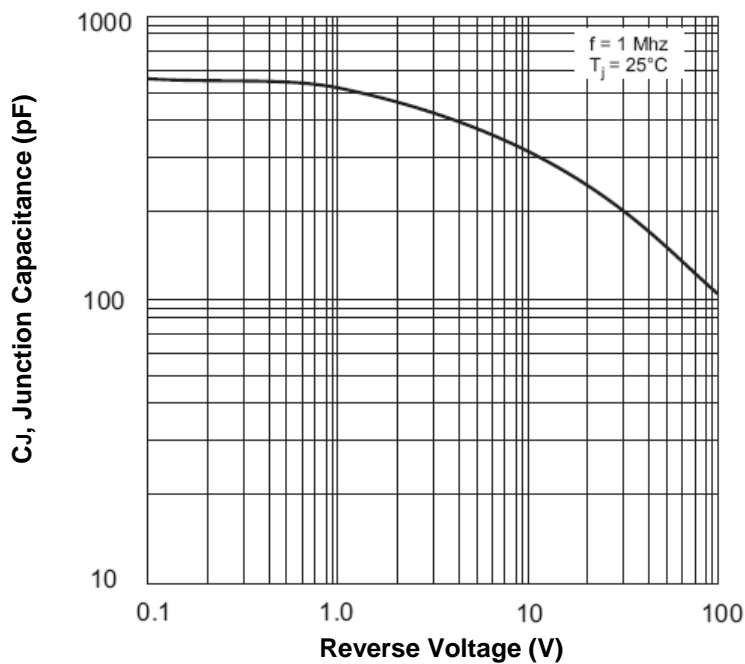


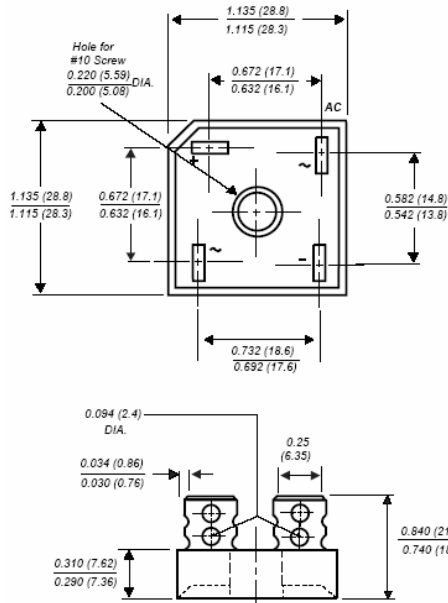
Fig.5-Typical Junction Capacitance Per Leg



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Dimensions in inch (mm)



GBPC35

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