

## 40A 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

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

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

Symbol	Description	GBPC 40-005	GBPC 40-01	GBPC 40-02	GBPC 40-04	GBPC 40-06	GBPC 40-08	GBPC 40-10	Unit	Conditions
<b>VRRM</b>	Max. Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
<b>VRMS</b>	Max. RMS Voltage	35	70	140	280	420	560	700	V	
<b>VDC</b>	Max. DC blocking voltage	50	100	200	400	600	800	1000	V	
<b>IF(AV)</b>	Max. Average Forward Rectified Output Current	40.0							A	$T_c=50^{\circ}C$ , See Fig.1
<b>IFSM</b>	Peak Forward Surge Current	400							A	8.3ms single half sine-wave superimposed on rated load (JEDEC method)

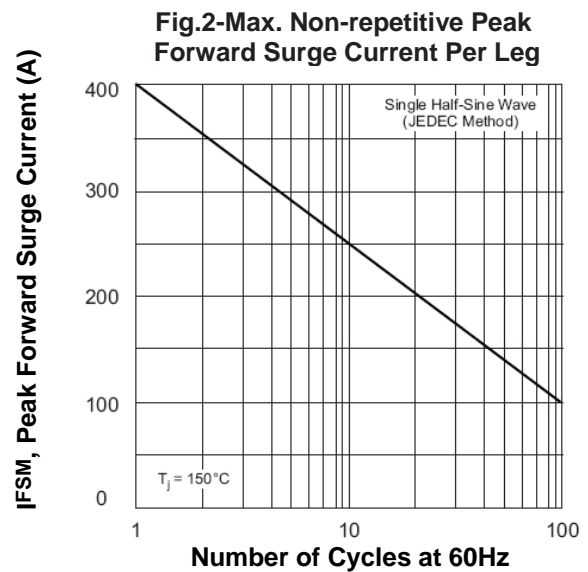
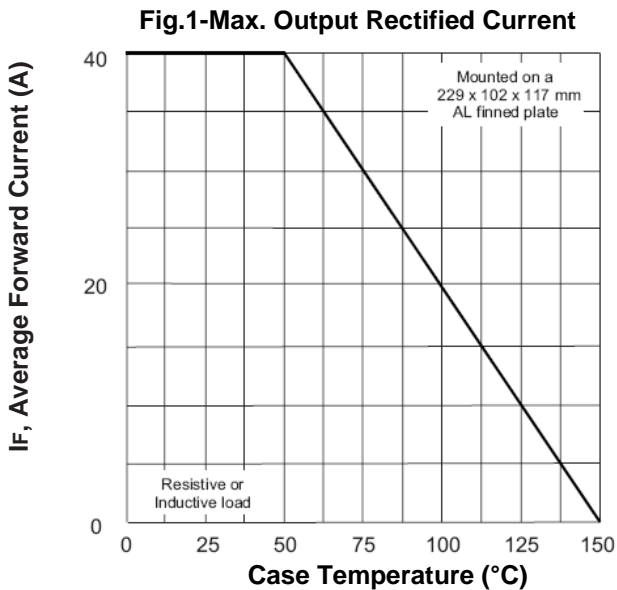
# 40A Glass Passivated Bridge Rectifier

## GBPC40-005 - GBPC40-10

<b>V<sub>F</sub></b>	Max. Instantaneous Forward Voltage drop per leg	1.1	V	I <sub>F(AV)</sub> =20A
<b>I<sub>R</sub></b>	Max. Reverse DC Current At Rated DC Blocking Voltage per leg	5.0	μA	T <sub>C</sub> = 25°C
		500	μA	T <sub>C</sub> = 125°C
<b>I<sup>2</sup>t</b>	Rating for Fusing (1ms<t<8.3ms)	660	A <sup>2</sup> s	
<b>C<sub>J</sub></b>	Typical junction capacitance	400	pF	f=1MHz V <sub>R</sub> = 4V
<b>R<sub>thjc</sub></b>	Typical Thermal Resistance per leg	1.4	°C / W	Note 1
<b>T<sub>J</sub>,T<sub>STG</sub></b>	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.

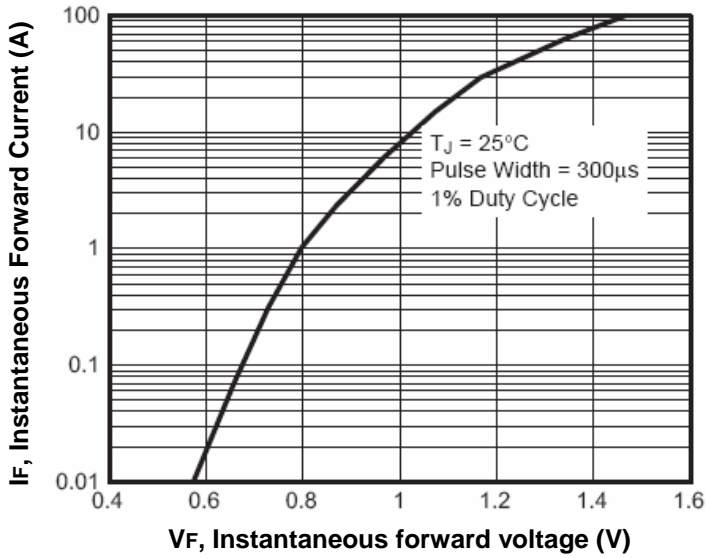
### Typical Characteristics Curves



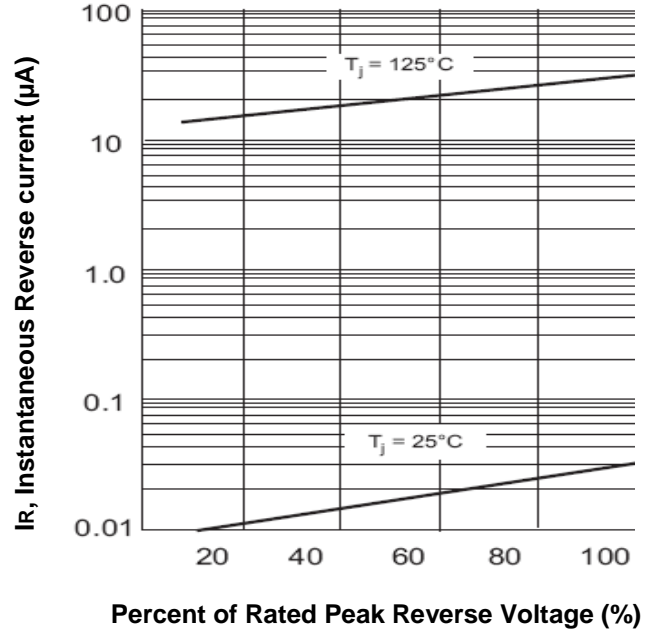
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## GBPC40-005 - GBPC40-10

**Fig.3-Typical Instantaneous Forward Characteristic Per Leg**



**Fig.4-Typical Reverse Characteristics Per Leg**



**Fig.5-Typical Junction Capacitance Per Leg**

