

## Single-Phase Glass Passivated Bridge Rectifier

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94 V-0
- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Ideal for printed circuit boards
- RoHS Compliant



GBJ



### Mechanical Data

<b>Case:</b>	Molded Plastic
<b>Terminals:</b>	Plated leads solderable per MIL-STD-202, method 208
<b>Polarity:</b>	Molded on Body
<b>Mounting Torque:</b>	8.8 In-lbs Max.
<b>Weight:</b>	7.0 grams

### Maximum Ratings ( $T_{Ambient}=25^{\circ}C$ unless noted)

Symbol	Description	GBJ35005	GBJ3501	GBJ3502	GBJ3504	GBJ3506	GBJ3508	GBJ3510	Unit
<b>V<sub>RRM</sub></b>	Max. Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V
<b>V<sub>RMS</sub></b>	Max. RMS Voltage	35	70	140	280	420	560	700	V
<b>V<sub>DC</sub></b>	Max. DC Blocking Voltage	50	100	200	400	600	800	1000	V
<b>I<sub>(AV)</sub></b>	Max. Average Forward Rectified Output Current at T <sub>c</sub> =100°C	35							A
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	350							A
<b>T<sub>J</sub>, T<sub>STG</sub></b>	Operating and Storage Temperature Range	-55 to +150							°C

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## GBJ35005 - GBJ3510

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	GBJ35 005	GBJ35 01	GBJ35 02	GBJ35 04	GBJ35 06	GBJ35 08	GBJ35 10	Unit	
$V_F$	Max. Instantaneous Forward Voltage Drop per leg at 17.5A DC	1.1							V	
$I_R$	Max. DC Reverse Current at Rated DC Blocking Voltage per leg	$T_A=25^{\circ}C$							10	$\mu A$
		$T_A=125^{\circ}C$							350	
$R_{\theta-JA}$	Typical Thermal Resistance per leg (Note2)	22								
$R_{\theta-JC}$	Typical Thermal Resistance per leg (Note1)	1.0							$^{\circ}C/W$	

#### Notes:

1. Device mounted on 220 x 220 x 1.6mm thick Al plate heat sink.
2. Device mounted on P.C.B. without heat sink.
3. Single phase, 60Hz, resistive or inductive load.
4. For capacitive load, derate current by 20%.

### Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

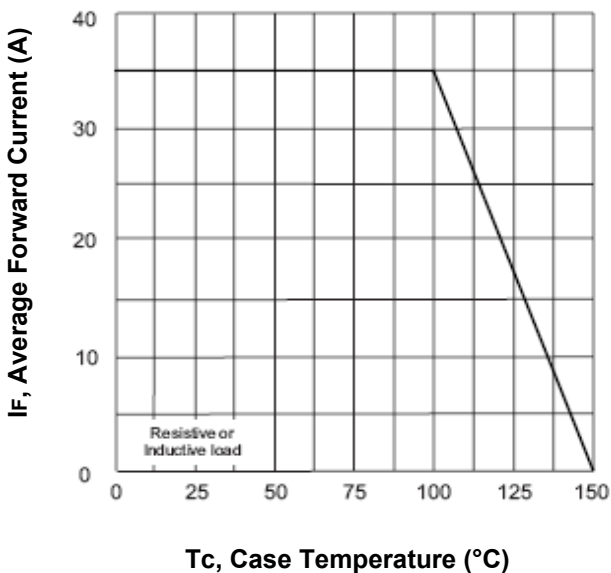
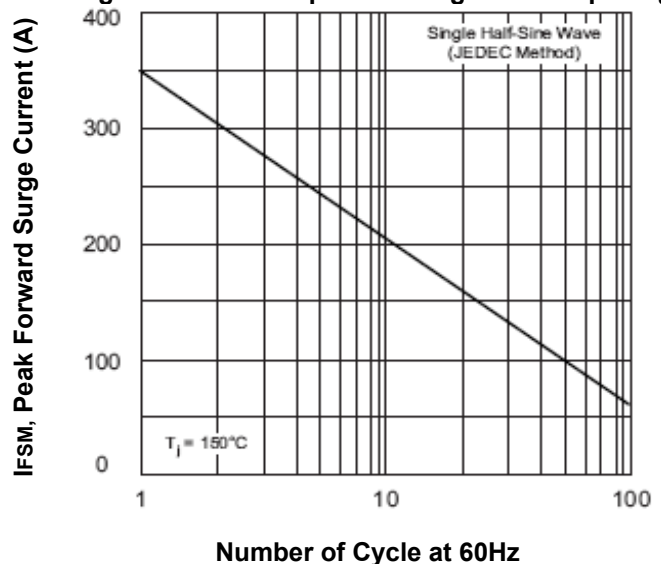


Fig.2- Max. Non-Repetitive Surge Current per leg



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## GBJ35005 - GBJ3510

Fig.3- Typical Forward Characteristics per leg

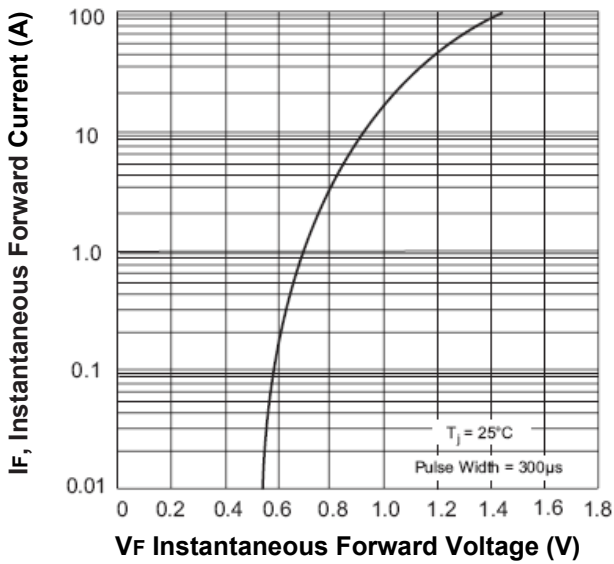


Fig.4- Typical Reverse Characteristics per leg

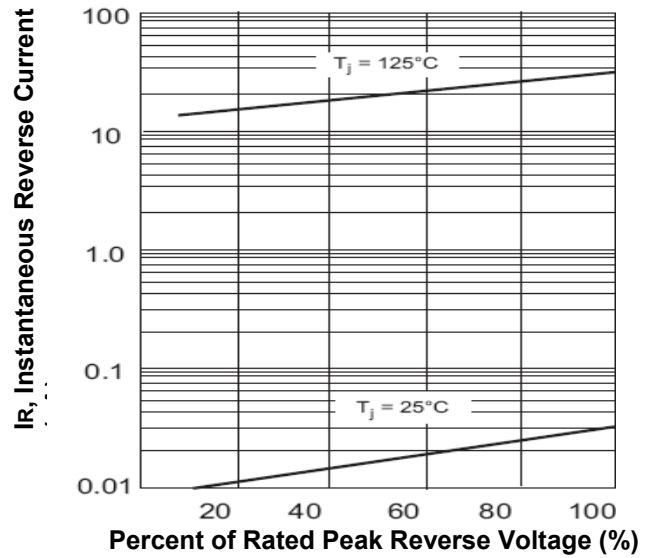
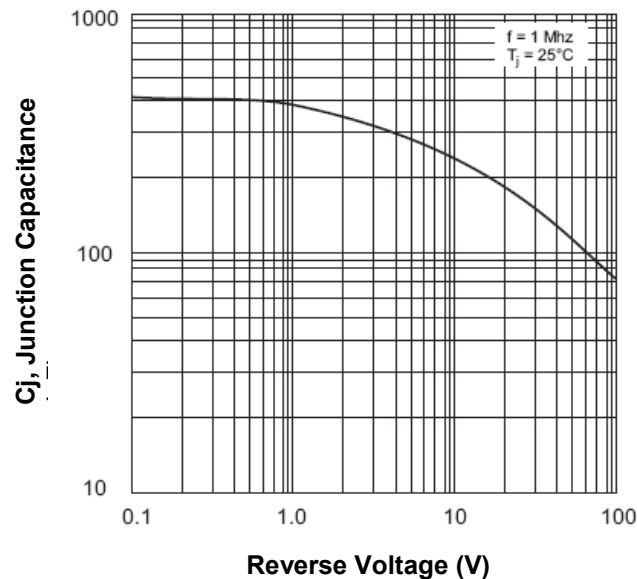


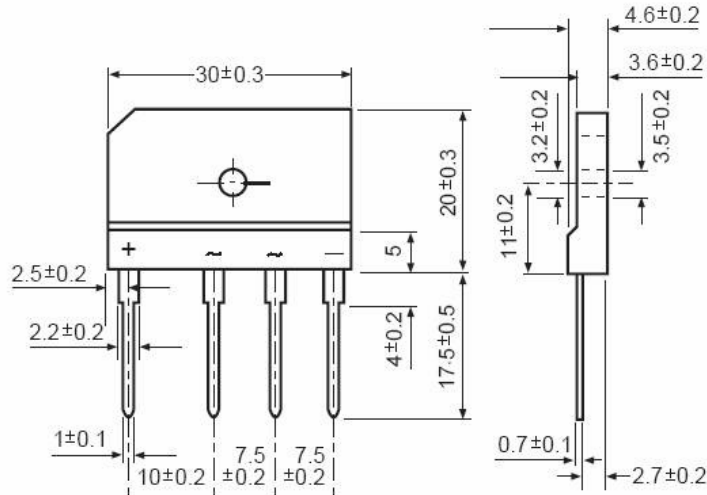
Fig.5- Typical Junction Capacitance per leg



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GBJ35005 - GBJ3510

## Dimensions in mm



GBJ

## How to contact us:

### US HEADQUARTERS

28040 WEST HARRISON PARKWAY, VALENCIA, CA 91355-4162

Tel: (800) TAITRON (800) 824-8766 (661) 257-6060

Fax: (800) TAITFAX (800) 824-8329 (661) 257-6415

Email: [taitron@taitroncomponents.com](mailto:taitron@taitroncomponents.com)

Http://[www.taitroncomponents.com](http://www.taitroncomponents.com)

### TAITRON COMPONENTS MEXICO, S.A .DE C.V.

BOULEVARD CENTRAL 5000 INTERIOR 5 PARQUE INDUSTRIAL ATITALAQUIA, HIDALGO C.P.  
42970 MEXICO

Tel: +52-55-5560-1519

Fax: +52-55-5560-2190

### TAITRON COMPONENTS INCORPORATED REPRESENTAÇÕES DO BRASIL LTDA

RUA DOMINGOS DE MORAIS, 2777, 2.ANDAR, SALA 24 SAÚDE - SÃO PAULO-SP 04035-001 BRAZIL

Tel: +55-11-5574-7949

Fax: +55-11-5572-0052

### TAITRON COMPONENTS INCORPORATED, SHANGHAI REPRESENTATIVE OFFICE

CROSS REGION PLAZA, 899 LINGLING ROAD, SUITE 18C, SHANGHAI, 200030, CHINA

Tel: +86-21-5424-9942

Fax: +86-21-5424-9931