

GLASS PASSIVATED BRIDGE RECTIFIERS

**REVERSE VOLTAGE – 600 to 1000 Volts
FORWARD CURRENT – 35 Amperes**

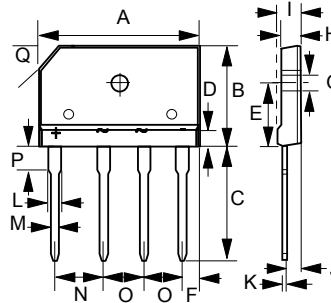
FEATURES

- Ideal for printed circuit board
- High surge current capability.
- ESD capability:
Machine mode, C (> 400 V)
Human body model, 3B (> 8 kV)
- UL recognized file # E95060

MECHANICAL DATA

- Case: GBJ
- Case Material: Plastic material, UL flammability classification 94V-0
- Component in accordance to RoHs 2002/95/EC
- Polarity indicator: Symbol molded on body
- Weight: 0.23 ounces, 6.6 grams
- Mounting position: Any

GBJ



GBJ		
DIM.	MIN.	MAX.
A	29.70	30.30
B	19.70	20.30
C	17.0	18.0
D	4.70	4.90
E	10.80	11.20
F	2.30	2.70
G	3.10 ϕ	3.40 ϕ
H	3.40	3.80
I	4.40	4.80
J	2.50	2.90
K	0.60	0.80
L	2.00	2.40
M	0.90	1.10
N	9.80	10.20
O	7.30	7.70
P	3.80	4.20
Q	(3.0) x 45°	
All dimension in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER	SYMBOL	GBJ3506	GBJ3508	GBJ3510	UNIT
Device marking code	Note	GBJ3506	GBJ3508	GBJ3510	--
Maximum repetitive peak reverse voltage	V_{RRM}	600	800	1000	V
Average rectified output current with heatsink $T_C = 80^\circ\text{C}$ without heatsink $T_a = 25^\circ\text{C}$	$I_{F(AV)}$		35 3.6		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load. $T_J = 25^\circ\text{C}$	I_{FSM}		400		A
I^2t rating for fusing ($3\text{ms} \leq t \leq 8.3\text{ms}$)	I^2t		664		A^2S
Mounting torque (recommended torque: 0.5 N.m)	TOR		0.8		N.m
Operating junction temperature range	T_J		-40 to +150		$^\circ\text{C}$
Storage temperature range	T_{STG}		-55 to +150		$^\circ\text{C}$

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS		SYMBOL	MAX	UNIT
Forward voltage	$I_F = 17.5\text{A}$	$T_J = 25^\circ\text{C}$	V_F	1.1	V
Leakage current	VR rated	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	I_R	10 500	μA
Typical junction capacitance (Note1)			C_J	150	pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note2)	R_{thJC} R_{thJL}	1.0 1.5	$^\circ\text{C/W}$

Note :

- (1) Measured at 1.0MHz and applied voltage of 4.0VDC.
- (2) Thermal resistance test performed in accordance with JESD-51.
Device mounted on 250mm x 250mm x 25mm Al plate heatsink.

RATING AND CHARACTERISTIC CURVES GBJ3506 thru GBJ3510



FIG.1- FORWARD CURRENT DERATING CURVE

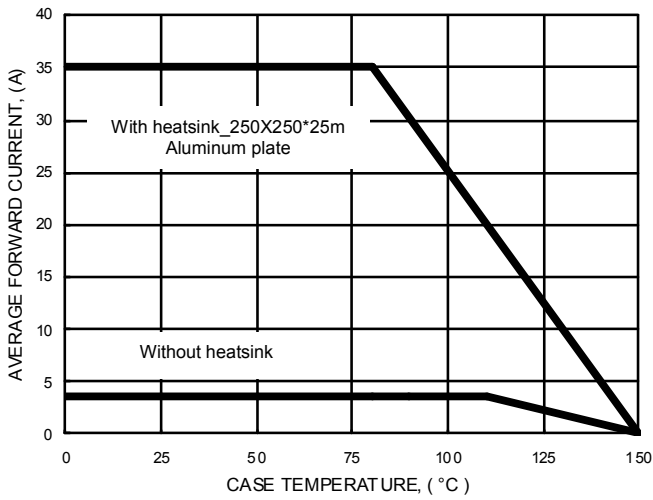


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

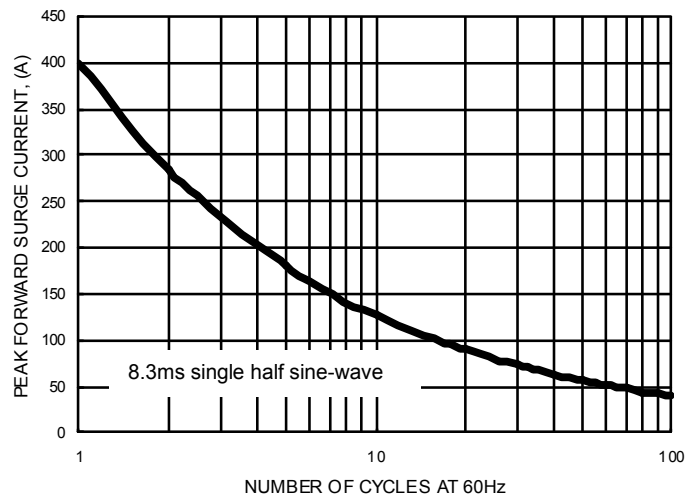


FIG.3- TYPICAL FORWARD CHARACTERISTICS

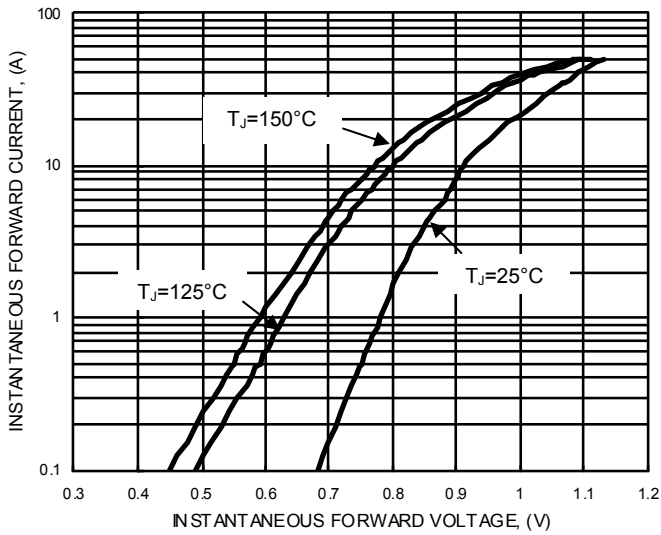


FIG.4- TYPICAL JUNCTION CAPACITANCE

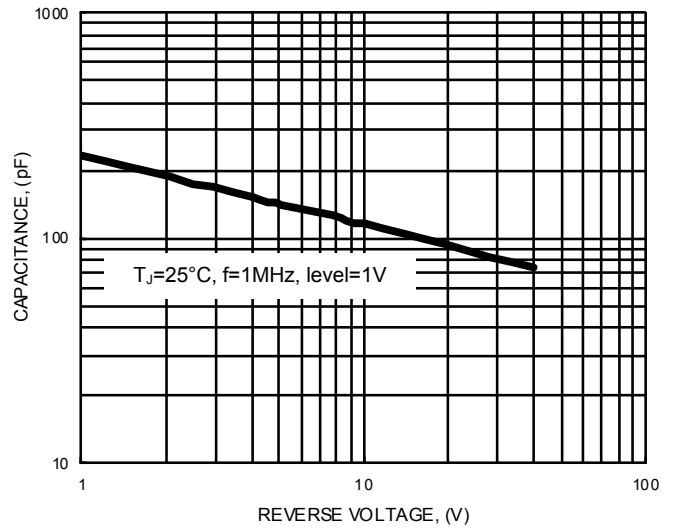


FIG.5- TYPICAL REVERSE CHARACTERISTICS

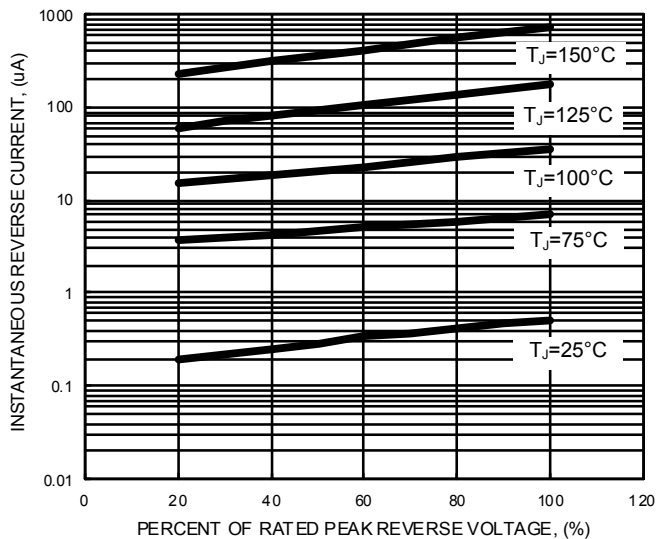
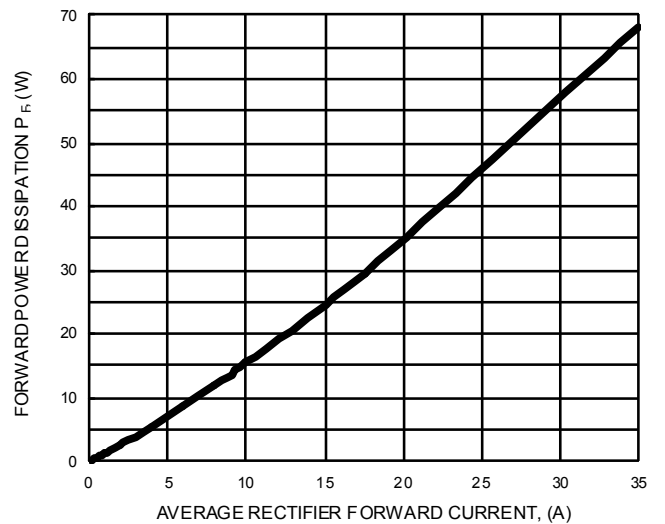


FIG.6- FORWARD POWER DISSIPATION



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