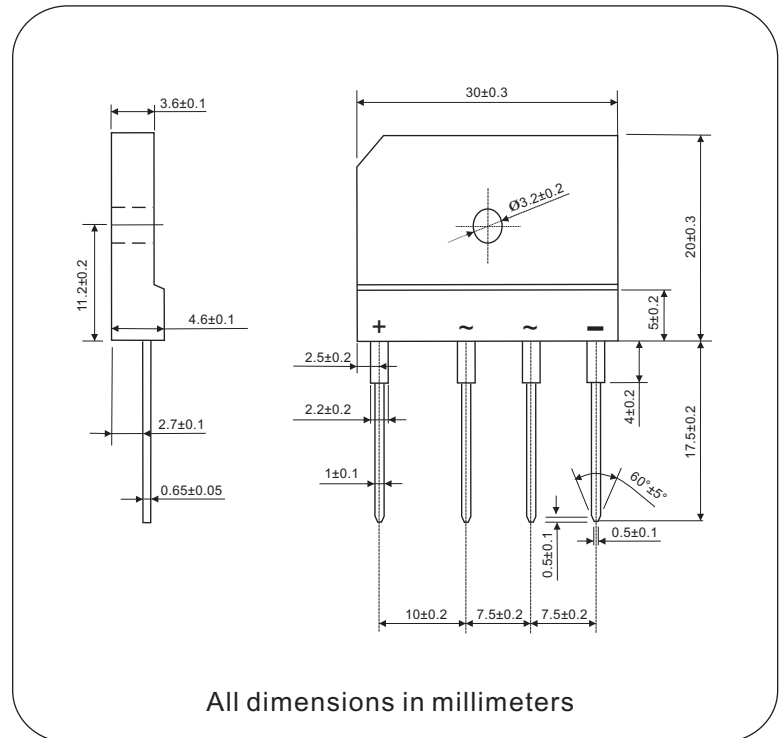
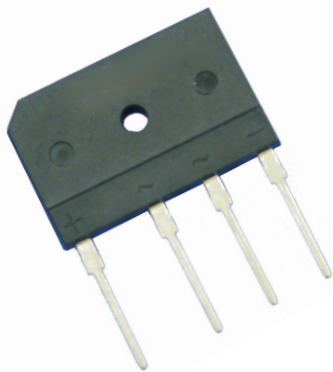
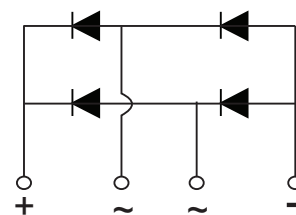


Avalanche Glass Passivated Single-Phase Bridge Rectifier 25A/600V



FEATURES

- UL recognition file number E320098
- Typical IR less than 1.0 μ A
- High surge current capability
- Glass passivated chip junction
- Low forward voltage drop
- Low thermal resistance
- Compliant to RoHS
- Isolation voltage up to 2500V
- Controlled avalanche series



TYPICAL APPLICATIONS

General purpose use in AC/DC bridge full wave rectification for switching power supply, field supply for DC motor, home appliances, white-goods applications, power supply for Telecom, desktop PC and server switching mode power supply.

ADVANTAGE

- International standard package
Epoxy meets UL 94 V-O flammability rating
- Small volume, light weight
- Small thermal resistance
- High heat-conduction rate
- Low temperature rise
- High temperature soldering guaranteed :
260°C/10 second, 2.3kg tension force
- Weight: 6.5g (0.23 ozs)

PRIMARY CHARACTERISTICS

$I_{F(AV)}$	25A
V_{RRM}	650V to 1000V
I_{FSM}	400A
I_R	1.0 μ A
V_F	0.92V Max
$T_{Jmax.}$	150°C

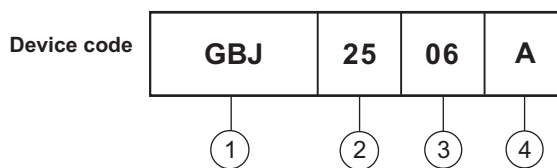
MAJOR RATINGS AND CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)			
PARAMETER	SYMBOL	GBJ2506A	UNIT
Minimum repetitive peak reverse voltage	V_{RRM}	600	V
Peak reverse non-repetitive voltage	V_{RSM}	700	V
Minimum avalanche breakdown voltage at $10\mu\text{A}$	V_{BR}	650	V
Maximum avalanche breakdown voltage at $10\mu\text{A}$	V_{BR}	1100	V
Maximum average forward rectified output current, $T_c = 105^\circ\text{C}$	$I_{F(AV)}$	25	A
Peak forward surge current single sine-wave superimposed on rated load	I_{FSM}	400	A
Rating (non-repetitive, for t greater than 1 ms and less than 8.3 ms) for fusing	I^2t	800	A^2s
RMS isolation voltage from case to leads	V_{ISO}	2500	V
Operating junction storage temperature range	T_J	-40 to 150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-40 to 150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)					
PARAMETER	TEST CONDITIONS	SYMBOL	GBJ2506A		UNIT
			TYP.	MAX.	
Instantaneous forward drop per diode	$I_F = 12.5\text{A}$	V_F	0.89	0.92	V
Maximum reverse DC current at rated DC blocking voltage per diode	$T_A = 25^\circ\text{C}$	I_R	0.2	2.0	μA
	$T_A = 125^\circ\text{C}$		150		

THERMAL AND MECHANICAL ($T_A = 25^\circ\text{C}$ unless otherwise noted)				
PARAMETER	TEST CONDITIONS	SYMBOL	GBJ2506A	UNIT
Typical thermal resistance junction to case	Single-side heat dissipation, sine half wave	$R_{\theta JC}^{(1)}$	1.0	$^\circ\text{C}/\text{W}$
Mounting torque to heatsink M3 $\pm 10\%$	A mounting compound is recommended and the torque should be rechecked after a period of 3 hours to allow for the spread of the compound.		0.8	N·m
Approximate weight			6.5	g

Notes

(1) With heatsink, single side heat dissipation, half sine wave.

Ordering Information Tabel


- ① - Product type : "GBJ" Package, 1Ø Bridge
- ② - $I_{F(AV)}$ rating : "25" for 25A
- ③ - Voltage code : code x 100 = V_{RRM}
- ④ - "A" for avalanche type, Minimum avalanche breakdown voltage = $V_{RRM} + 50\text{V}$
Maximum avalanche breakdown voltage = $V_{RRM} + 500\text{V}$

Fig.1 Derating curve for output rectified current

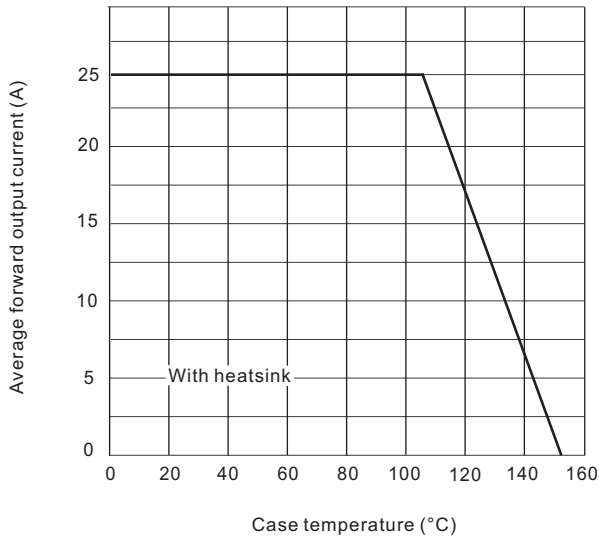


Fig.2 Maximum non-repetitive peak forward surge current per bridge element

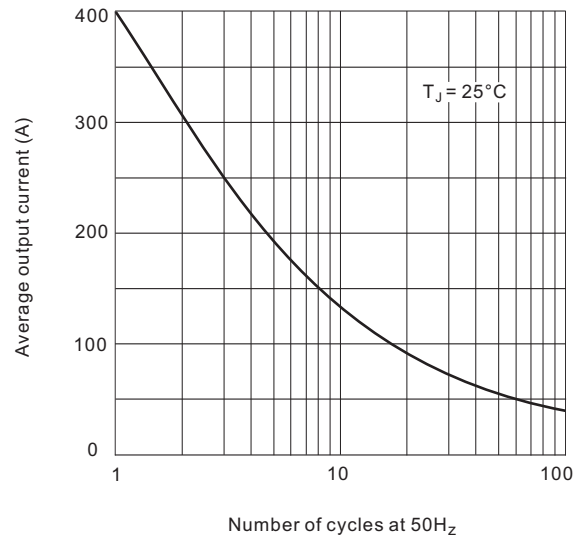


Fig.3 Typical reverse characteristics per bridge element

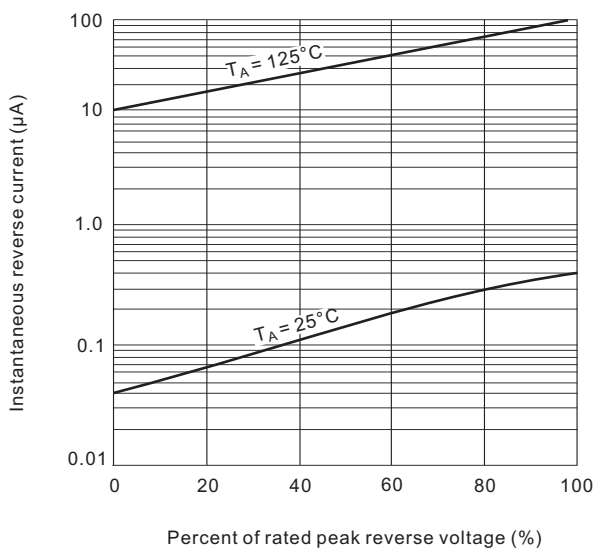


Fig.4 Typical forward characteristics per bridge element

