



E502650

## Features

- Halogen Free. "Green" Device (Note 1)
- Planar Chip Junction
- Low Forward Voltage Drop
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 2) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

# 25 Amp Low VF Bridge Rectifiers 600 Volts

## Maximum Ratings @ 25°C (Unless Otherwise Specified)

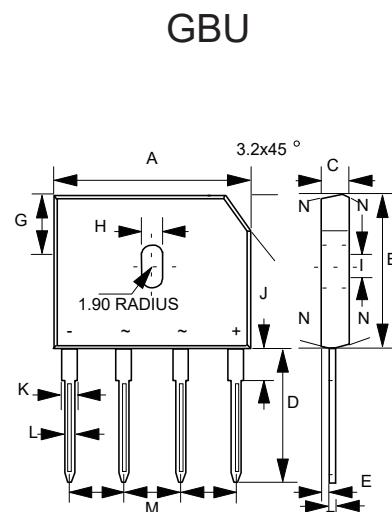
Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$		V
Working Peak Reverse Voltage	$V_{RWM}$	600	V
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{RMS}$	420	V
Average Rectified Forward Current @ $T_C=110^\circ\text{C}$ (With Heatsink)	$I_{F(AV)}$	25	A
Average Rectified Forward Current @ $T_A=25^\circ\text{C}$ (Without Heatsink)		4	
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	$I_{FSM}$	360	A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		720	
$I^2t$ Rating for Fusing @ $1\text{ms} \leq t \leq 8.3\text{ms}$	$I^2t$	538	$\text{A}^2\text{s}$
Dielectric strength @Terminals to Case, AC 1 Minute	$V_{dis}$	2.5	KV

## Internal Structure

Simplified Outline	Graphic Symbol

### Note:

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High temperature solder exemption applied, see EU directive annex 7a.



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.860	0.880	21.80	22.30	
B	0.720	0.740	18.30	18.80	
C	0.130	0.142	3.30	3.60	
D	0.690	0.717	17.50	18.20	
E	0.030	0.039	0.76	1.00	
F	0.018	0.024	0.46	0.60	
G	0.290	0.310	7.40	7.90	
H	0.140	0.160	3.50	4.10	
I	0.065	0.085	1.65	2.16	
J	0.060	0.096	1.52	2.45	
K	0.077	0.098	1.95	2.50	
L	0.040	0.050	1.02	1.27	
M	0.190	0.210	4.83	5.33	
N	7.0° TYPICAL				

## Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T <sub>J</sub>	Operating Junction Temperature Range		-55		150	°C
T <sub>stg</sub>	Storage Temperature Range		-55		150	°C
R <sub>th(J-C)</sub>	Thermal Resistance from Junction to Case	Note 1		1.2		°C/W
R <sub>th(J-A)</sub>	Thermal Resistance from Junction to Ambient	Without Heatsink		25		°C/W

Note:

1.Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

## Mechanical Data

Recommended Mounting Torque: 5 in-lbs

## Electrical Characteristics @ 25°C Unless Otherwise Specified(Per Diode)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =12.5A;T <sub>J</sub> =25°C I <sub>F</sub> =12.5A;T <sub>J</sub> =125°C		0.87 0.75	0.92 0.80	V
Reverse Current	I <sub>R</sub>	at Rated V <sub>R</sub> ;T <sub>J</sub> =25°C at Rated V <sub>R</sub> ;T <sub>J</sub> =125°C			5 50	uA
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> =4V;f=1MHz;T <sub>J</sub> =25°C		185		pF

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

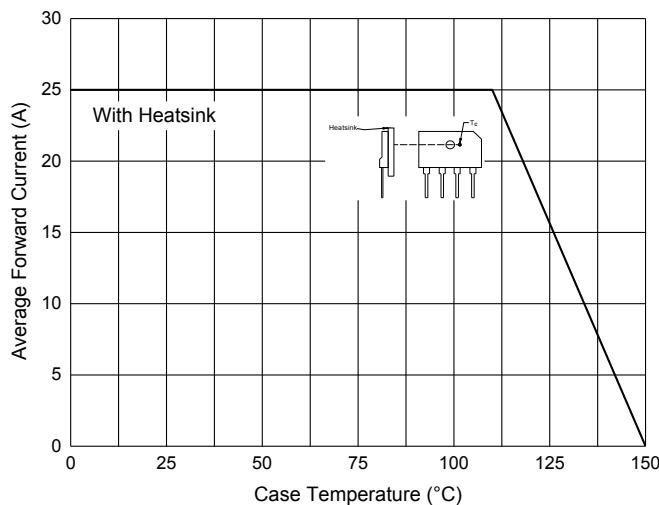


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current(Per Diode)

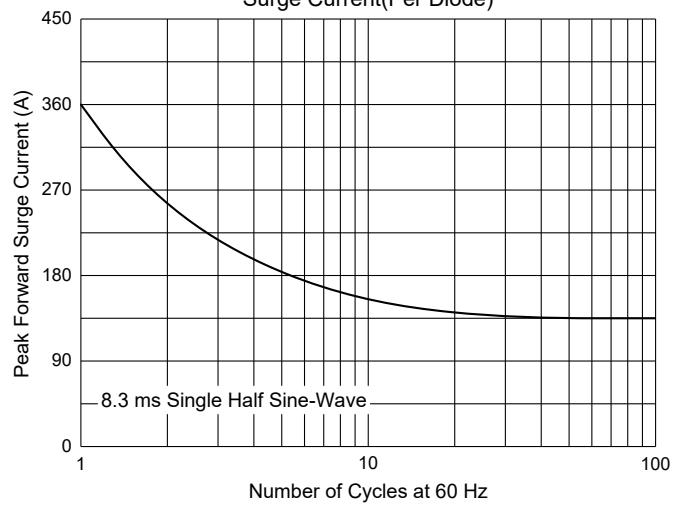


Fig. 3 - Typical Forward Characteristics (Per Diode)

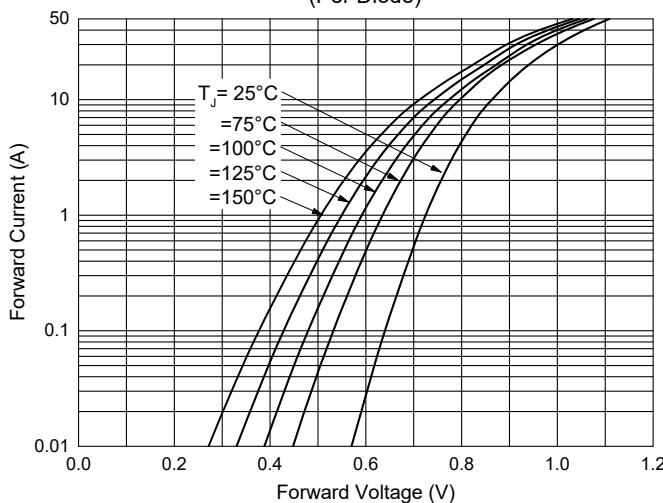


Fig. 4 - Typical Reverse Leakage Characteristics (Per Diode)

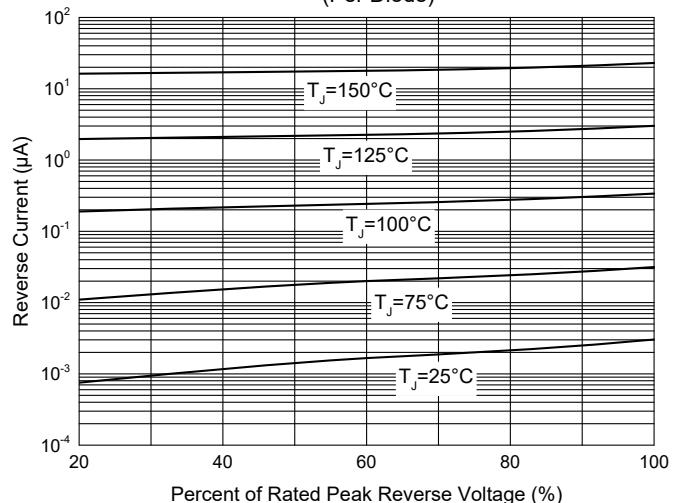
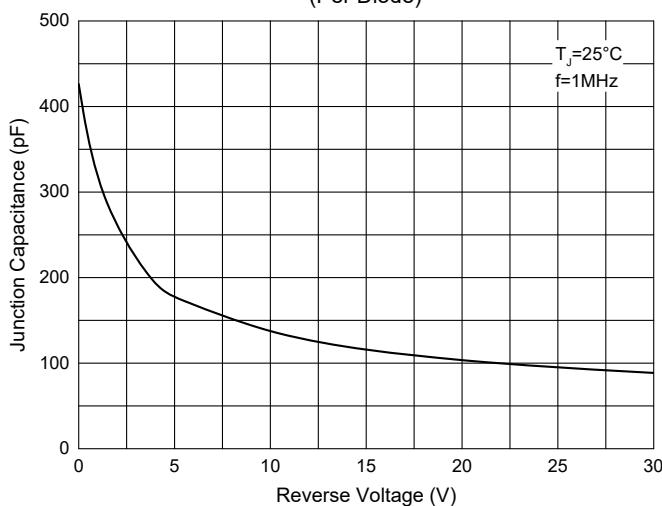


Fig. 5 - Typical Capacitance Characteristics (Per Diode)



## Ordering Information

Device	Packing
GBU25L06-BP	Bulk:20pcs/Tube,1Kpcs/Box,2Kpcs/Carton

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