GBU6K-47L

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

Voltage: 800V Current: 6.0A

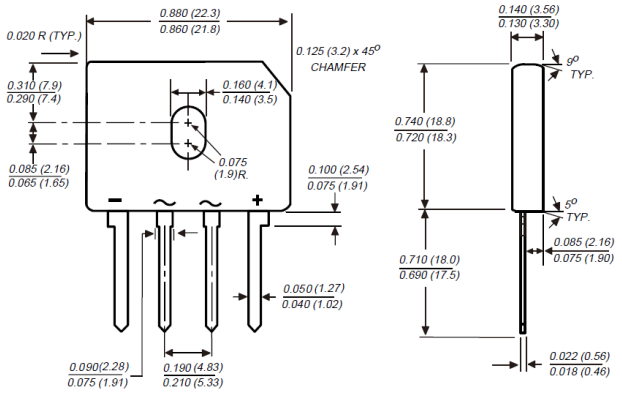
Features

Ideal for printed circuit board
Glass passivated chip junction
High case dielectric strength
High surge current capability
This series is UL listed under Recognized Component Index, file number E330278

Mechanical Data

Terminal: Plated leads solderable per J-STD-002
Case: UL-94 Class V-0 recognized Flame Retardant Epoxy
Polarity: Polarity symbol marked on body
Mounting position: Thru hole for #6 screw

GBU



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60Hz, resistive or inductive load rating at 25°C, unless otherwise stated)

		Symbol	GBU6K-47L	units
Maximum repetitive peak reverse voltage		Vrrm	800	V
Maximum RMS voltage		Vrms	560	V
Maximum DC blocking voltage		Vdc	800	V
Maximum average forward rectified output current	有散热片 Tc = 100℃	If(av)	6.0	A
	无散热片，有风环境 Tc = 66℃		3.4	
	无散热片，有风环境 Ta = 45℃		3.4	
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)		Ifsm	175	A
Maximum instantaneous forward voltage drop per leg at 6.0A		Vf	1.0	V
Rating for fusing (t < 8.3ms)		I^2t	127	A^2Sec
Maximum DC reverse current at rated DC blocking voltage per leg	Ta = 25°C	Ir	5.0	μA
	Ta = 125°C		500	
Maximum thermal resistance per leg	with heatsink (Note1)	Rth(ja) Rth(jc) Rth(jl)	7.4 2.2 3.2	℃/W
	without heatsink (Note2)	Rth(ja) Rth(jc) Rth(jl)	23 8.0 9.5	
Typical junction capacitance per leg	(Note 3)	Cj	94	pF
Operating junction and storage temperature range		Tj, Tstg	-55 to +150	℃

Note:
1. Unit case mounted on 2.6 x 1.4 x 0.06" thick (6.5 x3.5 x 0.15cm) Al. Plate heatsink
2. Units mounted in free air, no heatsink on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads, 0.375" (9.5mm) lead length
3. Measured at 1.0 MHz and applied voltage of 4.0 volt

Fig. 1 – Derating Curve Output Rectified Current

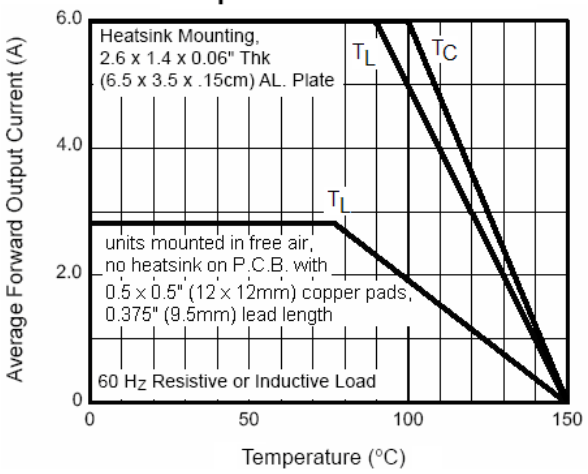


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg

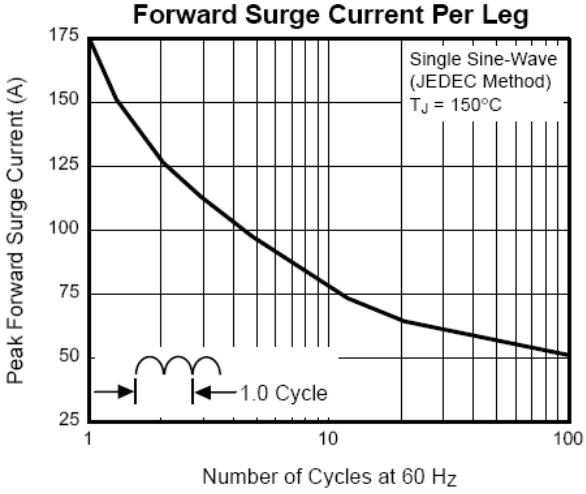


Fig. 3 – Typical Forward Characteristics Per Leg

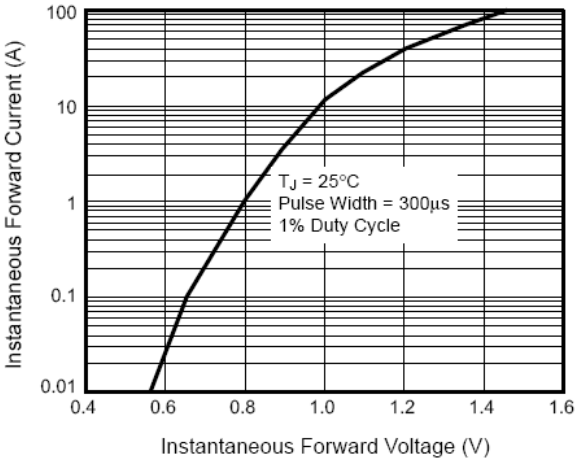


Fig. 4 – Typical Reverse Leakage Characteristics Per Leg

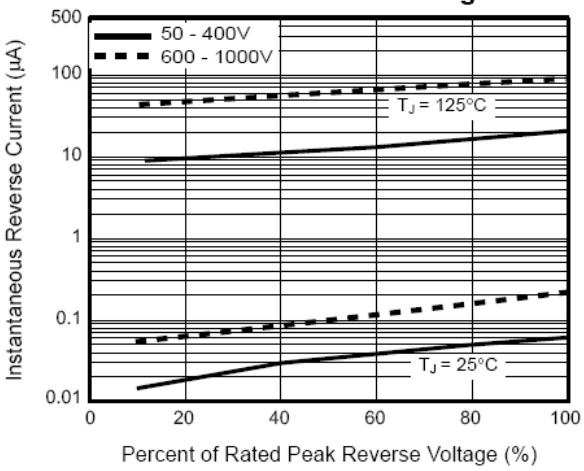


Fig. 5 – Typical Junction Capacitance Per Leg

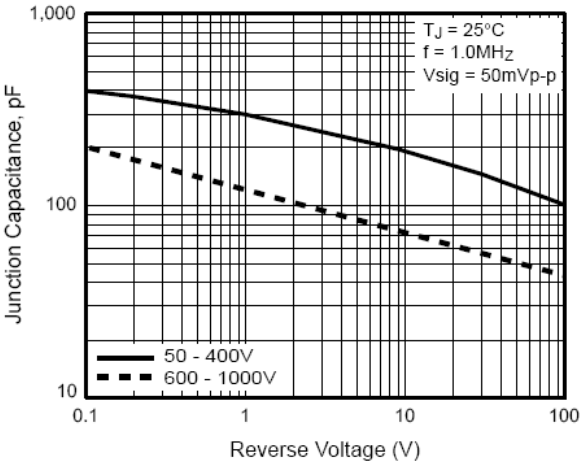
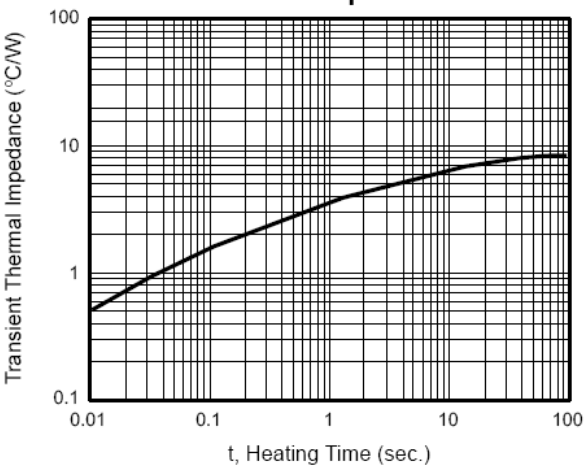
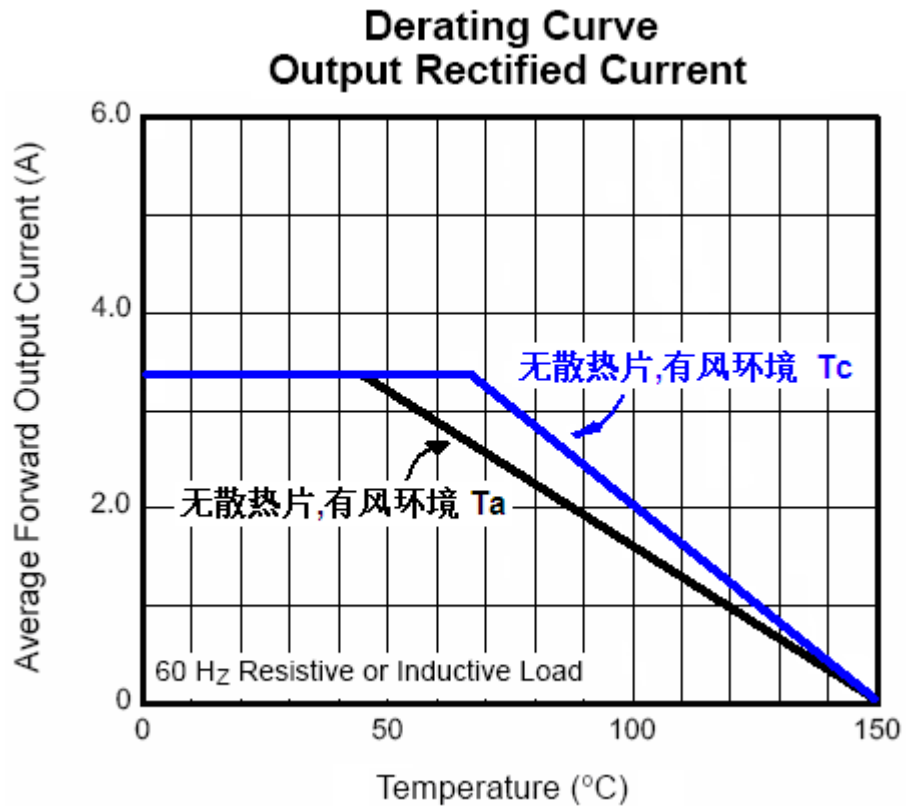


Fig. 6 – Typical Transient Thermal Impedance




Derating Curve
Output Rectified Current
Average Forward Output Current (A)
6.0
4.0
2.0
0
0
50
100
150
Temperature (°C)
无散热片,有风环境 Tc
无散热片,有风环境 Ta
60 HZ Resistive or Inductive Load