

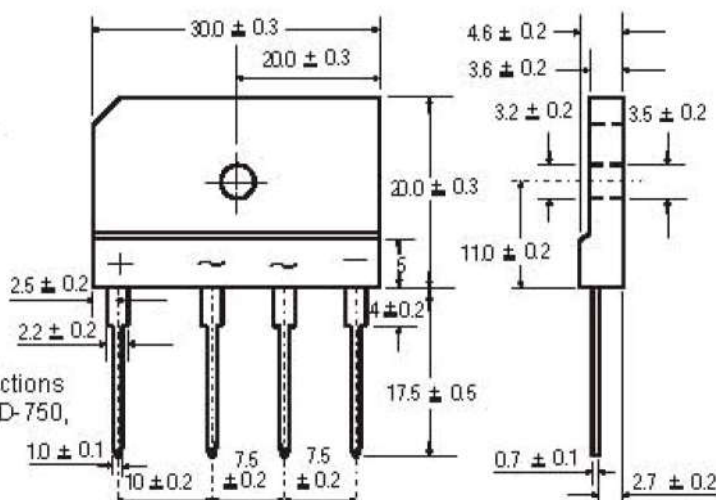
50 A Single-Phase Silicon Bridge Rectifier
 Rectifier Reverse Voltage 50 to 1000V

Features

- This series is UL listed under the Recognized Component Index, file number E142814
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High case dielectric strength of 1500VRMS
Ideal for printed circuit boards
- High surge current capability

Mechanical Data

Case : Molded plastic body over passivated junctions
 Terminals : Plated leads solderable per MIL-STD-750, Method 2026
 Polarity : Polarity symbols molded on body
 Mounting Position : Any(3)
 Mounting Torque : 5 in.-lbs max.
 Weight : 0.26 ounce, 7.0 grams (approx)



Dimensions in millimeters(1mm = 0.0394")

Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
 For Capacitive load derate current by 20%.

Parameter	Symbol	GBJ 50005	GBJ 5001	GBJ 5002	GBJ 5004	GBJ 5006	GBJ 5008	GBJ 5010	Unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current Tc = 100°C	IF(AV)	50							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	450							A
Rating for fusing (t < 8.3ms)	I ² t	120							A ² sec
Maximum thermal resistance per leg	ReJA ReJC	2.6(2) 5(1)							°C / W
Operating junction and storage temperature range	TJ, TSTG	-55 to + 150							°C

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
 For Capacitive load derate by 20 %.

Parameter	Symbol	GBJ 50005	GBJ 5001	GBJ 5002	GBJ 5004	GBJ 5006	GBJ 5008	GBJ 5010	Unit
Maximum instantaneous forward voltage drop per leg at 17.5A	VF	1.0							V
Maximum DC reverse current at rated DC blocking voltage per leg TA = 25°C TA = 125°C	IR	10 500							µA

Notes: (1) Unit case mounted on Al plate heatsink.
 (2) Units mounted on P.C.B. with 0.5x0.5"(12x12mm) copper pads and 0.375"(9.5) lead length.
 (3) Recommended mounting position is to bolt down on heat sink with silicone thermal compound for maximum heat transfer with #6 screw.

Rating and Characteristic Curves ($T_A=25^{\circ}\text{C}$ Unless otherwise noted) GBJ50005 thru GBJ5010

FIG.1 . I_o - T_a Curve

图 1. 电流降额曲线

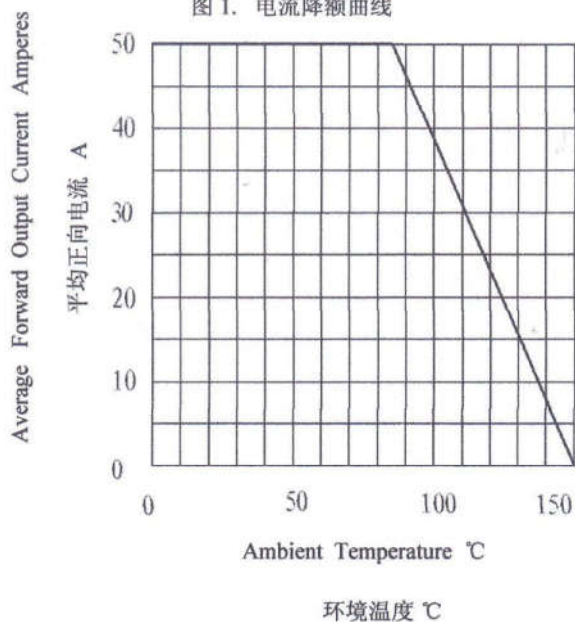


FIG.2 . Surge Forward Current Capability

图 2. 最大正向不重复峰值浪涌电流

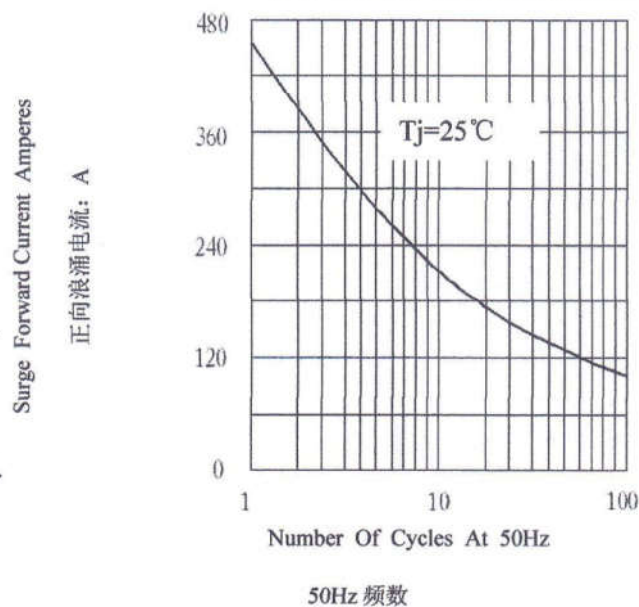


FIG3. Typical Reverse Characteristics

图 3. 典型反向特性

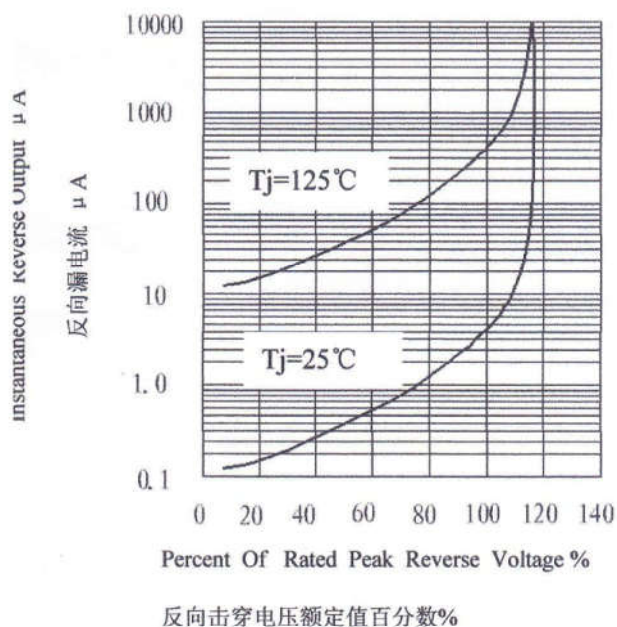


FIG4. Instantaneous Forward Voltage

图 4. 典型正向特性

