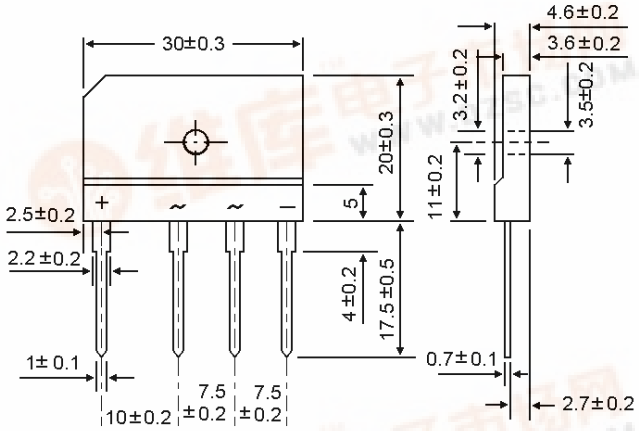
MOSPEC

GBJ20A THRU GBJ20M

GLASS PASSIVATED BRIDGE SINGLE-PHASE BRIDGE RECTIFIERS
VOLTAGE 50 to 1000 Volts
CURRENT 20 Amperes

Case Style GBJ



Dimensions in millimeters

FEATURES

* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
* High case dielectric strength of 2500 V_{RMS}
* Ideal for printed circuit boards
* Glass passivated chip junction
* High surge current capability
* High temperature soldering guaranteed: 260℃/10 seconds, 0.375 (9.5mm) lead length, 5lbs. (2.3Kg) tension

MECHANICAL DATA

* Case: Molded plastic body
* Terminal: Plated leads solderable per MIL-STD-750, Method 2026
* Mounting Position: Any (Note 3)
* Mounting Torque: 8 in-lbs max.
  Weight: 0.26 oz., 7.0g

MAXIMUM RATINGS AND ELECTRICAL CHARATERISTICS

* Rating at 25℃ ambient temperature unless otherwise specified
* Single phase,half wave. 60Hz, resistive or inductive load.
* For capacitive load derate current by 20 %

Characteristic	Symbol	GBJ20A	GBJ20B	GBJ20D	GBJ20G	GBJ20J	GBJ20K	GBJ20M	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectifier Forward Current @ T_C=87℃ @ T_A=25℃	$I_{F(AV)}$	20(1) 3.5(2)							A
Non-Repetitive Peak Surge Current 8.3 ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	240							A
Forward Voltage (per element) (I_F =10 Amp)	V_{FM}	1.05							V
Peak Reverse Current (Rated DC Voltage, T_C = 25℃) (Rated DC Voltage, T_C = 125℃)	I_R	10 250							uA
I^2t Rating for Fusing(t<8.3 ms)	I^2t	240							A^2s
Typical Junction Capacitance per element	C_j	140							pF
Maximum Thermal Resistance per leg	$R_{\theta jA}$ $R_{\theta jc}$	22(2) 1.5(1)							°C/W
Operating and Storage Temperature Range	T_J , T_{stg}	-55 to +150							℃

Note: **NOTES:**
1. Unit case mounted on Al plate heatsink
2. Unit mounted on P.C.B. without heatsink
3. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

GBJ20A thru GBJ20M

FIG-1 FORWARD CURRENT DERATING CURVE

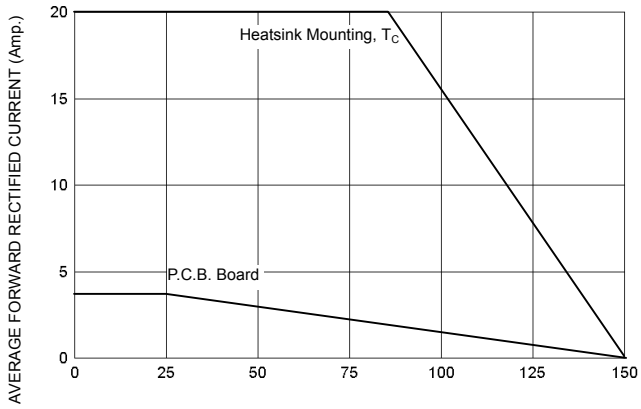


FIG-2 TYPICAL FORWARD CHARACTERISITICS

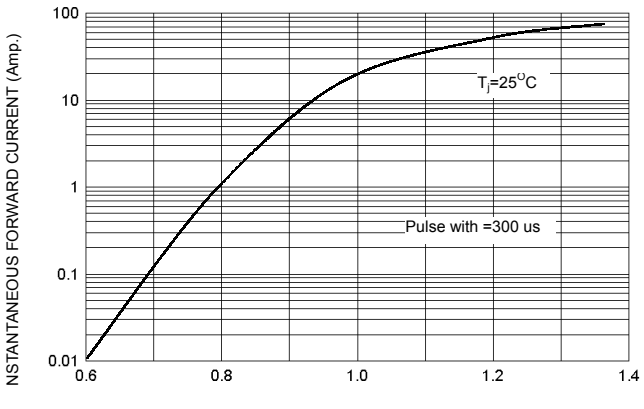


FIG-3 PEAK FORWARD SURGE CURRENT

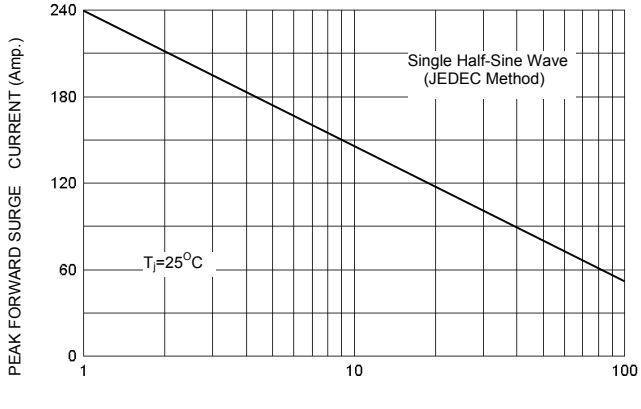


FIG-4 TYPICAL JUNCTION CAPACITANCE

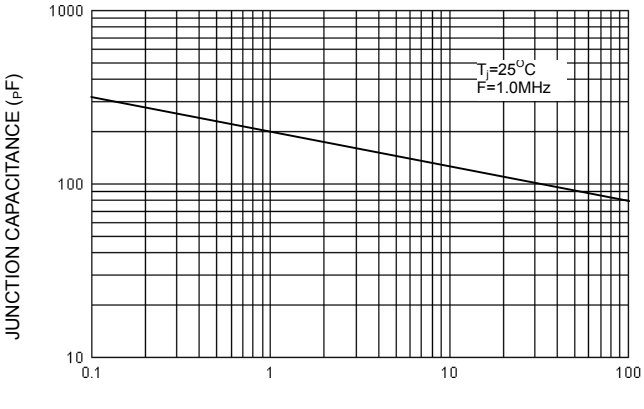


FIG-5 TYPICAL REVERSE CHARACTERISTICS Per leg

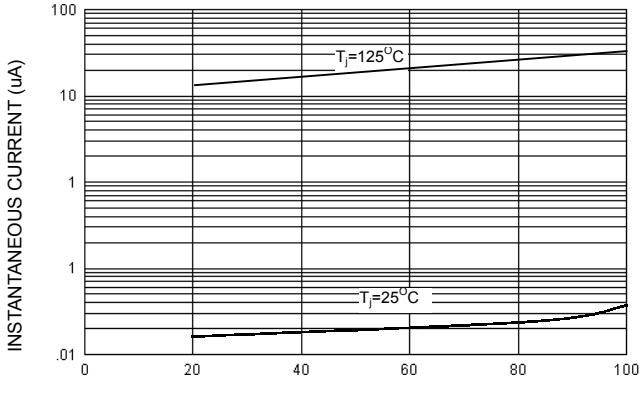


FIG-6 TYPICAL TRANSIENT THERMAL IMPEDANCE