SBYT42M

SINTERED GLASS JUNCTION
SURFACE MOUNTED RECTIFIER

VOLTAGE: 1000V **CURRENT: 1.25A**

GULF SEMI

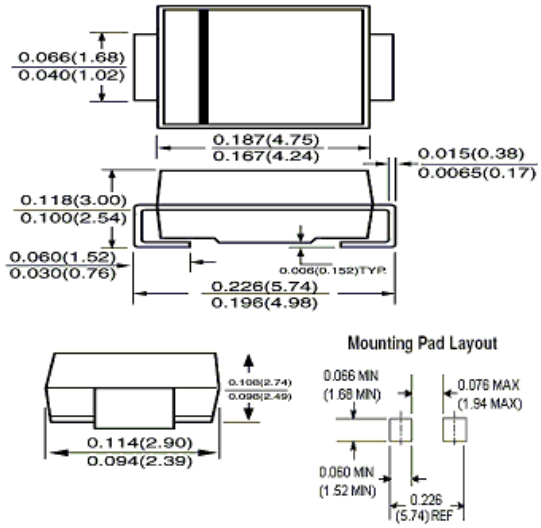
FEATURE

High temperature metallurgically bonded construction
Sintered glass cavity free junction
Capability of meeting environmental standard of MIL-S-19500
High temperature soldering guaranteed
450℃/5sec at terminal
Complete device submersible temperature of
265℃ for 10 seconds in solder bath
Operate at Ta =55°C with no thermal run away
Typical Ir<0.1μA
Fast Soft Recovery Rectifier

MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C
Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy
Polarity: color band denotes cathode
Mounting position: any
Mark: **T42M**

GF1/ DO-214BA



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOL	SBYT42M	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	1000	V
Maximum RMS Voltage	Vrms	700	V
Maximum DC blocking Voltage	Vdc	1000	V
Maximum Average Forward Rectified Current 3/8"lead length at Ta =55°C	If(av)	1.25	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	30.0	A
Maximum Forward Voltage atForward Current 1.0A and 25°C	Vf	1.4	V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =150°C	Ir	5.0 150.0	μA
Maximum Reverse Recovery Time (Note 1)	Trr	200	nS
Non repetitive reverse avalanche energy $I_{(BR)R}$=0.4A	Er	10.0	mJ
Typical Thermal Resistance (Note 2)	Rth(ja)	55.0	°C /W
Storage and Operating Junction Temperature	Tstg, Tj	-65 to +175	°C

Note:
1. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
2. Thermal Resistance from Junction to Ambient, P.C.B. Mounted on 0.2×0.2″ (5.0×5.0mm) copper pad areas

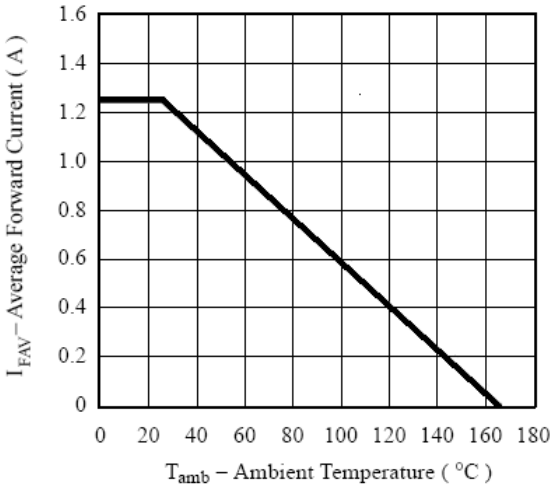


Figure 1. Max. Average Forward Current vs. Ambient Temperature

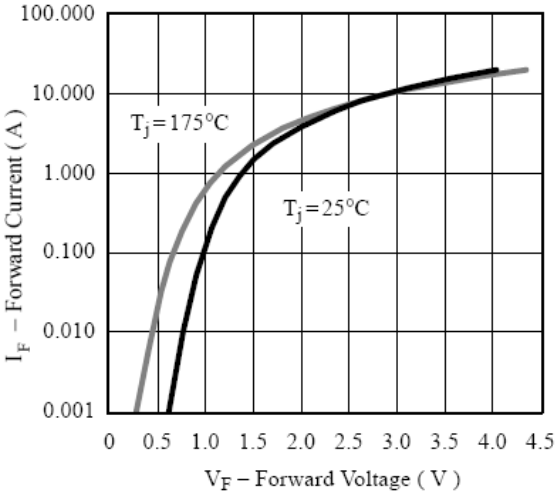


Figure 2. Max. Forward Current vs. Forward Voltage

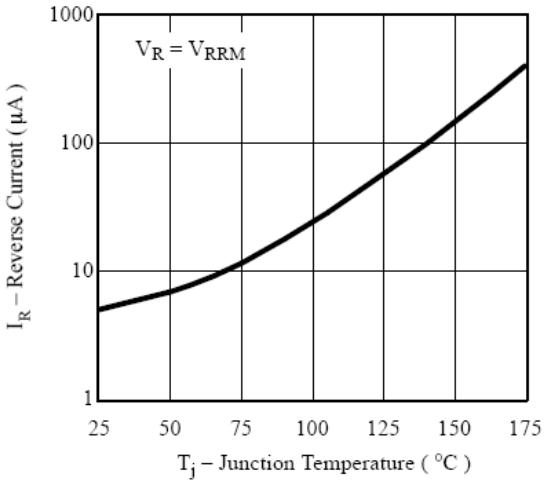


Figure 3. Max. Reverse Current vs. Junction Temperature

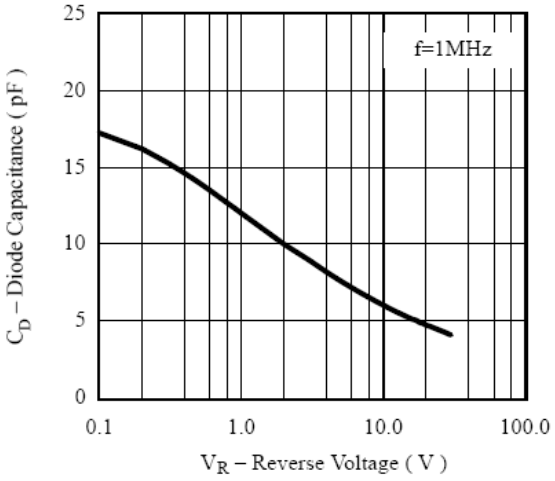


Figure 4. Diode Capacitance vs. Reverse Voltage