

SBYD17D

SINTERED GLASS JUNCTION SURFACE MOUNTED RECTIFIER

VOLTAGE: 200V

CURRENT: 1.0A



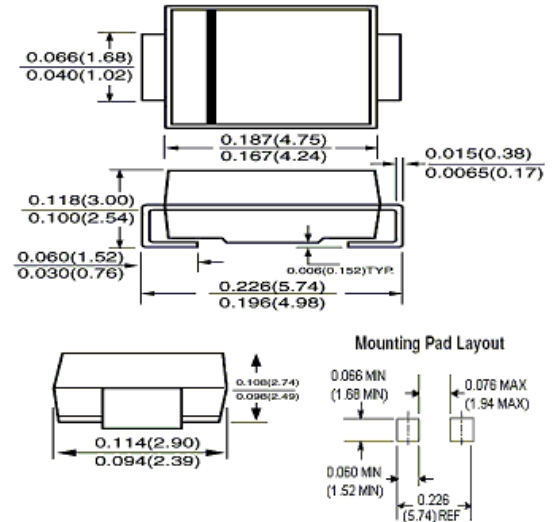
FEATURE

For surface mounted application
High temperature metallurgic ally bonded
Sintered glass junction
Capability of meeting environmental standard of MIL-S-19500
High temperature soldering guaranteed
450°C/10sec/at terminal / complete device
Submersible temperature of 265°C for 10sec

MECHANICAL DATA

Terminal: Plated Terminal, solderable per
MIL-STD 202, method 208C
Case: Molded with UL-94 class V-0 recognized
Flame Retardant Epoxy over Glass
Polarity: color band denotes cathode end
Mark: D17D

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, for capacitive load, derate current by 20%)

	SYMBOL	SBYD17D	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	200	V
Maximum RMS Voltage	V _{rms}	140	V
Maximum DC blocking Voltage	V _{dc}	200	V
Reverse avalanche breakdown voltage at I _R = 0.1 mA	V _{(BR)R}	225min	V
Maximum Average Forward Rectified Current	I _{f(av)}	1.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{fsm}	30.0	A
Maximum Forward Voltage at rated Forward current T _a =25°C	V _f	1.05	V
Maximum DC Reverse Current at rated DC blocking voltage T _a =25°C T _a =150°C	I _r	1.0 50.0	μA
Non-Repetitive Peak Reverse Avalanche Energy (Note 1)	E _{rsm}	7.0	mJ
Typical Junction Capacitance (Note 2)	C _j	15.0	pF
Typical Thermal Resistance (Note 3)	R _{th(ja)}	80.0	°C/W
Operating and Storage Temperature Range	T _{st} , T _j	-65 to +175	°C

Note:

1. L=120mH; T_j=T_{jmax} prior to surge; inductive load switched off
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient 6.0mm² copper pad to each terminal

RATINGS AND CHARACTERISTIC CURVES SBYD17D

FIG. 1 - FORWARD CURRENT DERATING CURVE

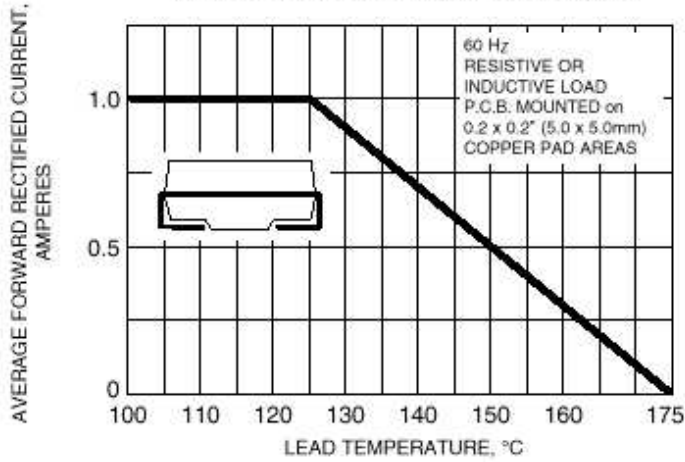


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

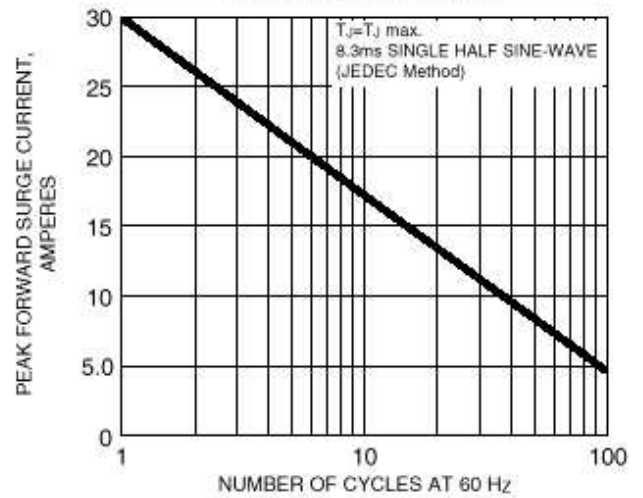


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

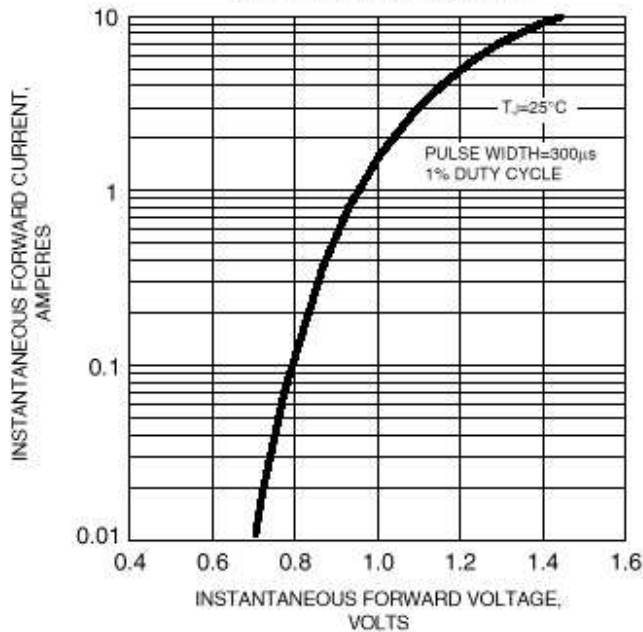


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

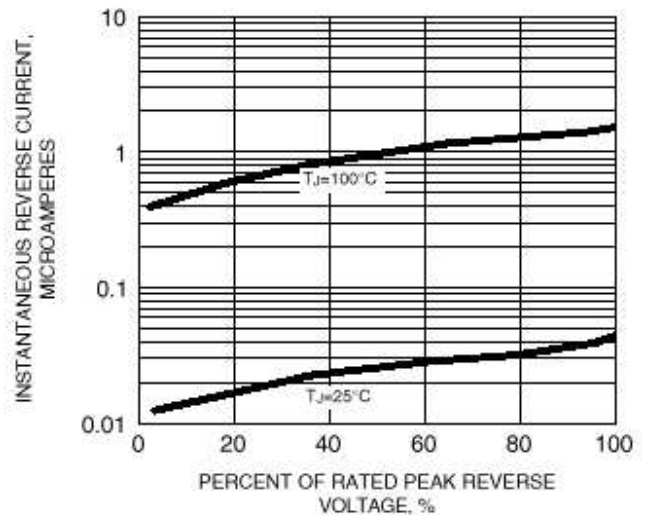


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

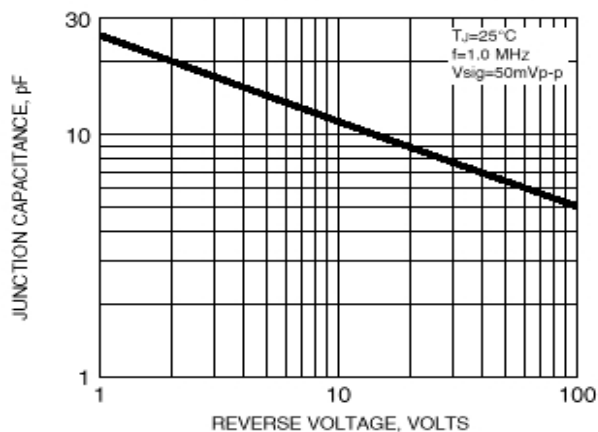


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

