

# SBYD17D

## SINTERED GLASS JUNCTION SURFACE MOUNTED RECTIFIER

VOLTAGE: 200V

CURRENT: 1.0A



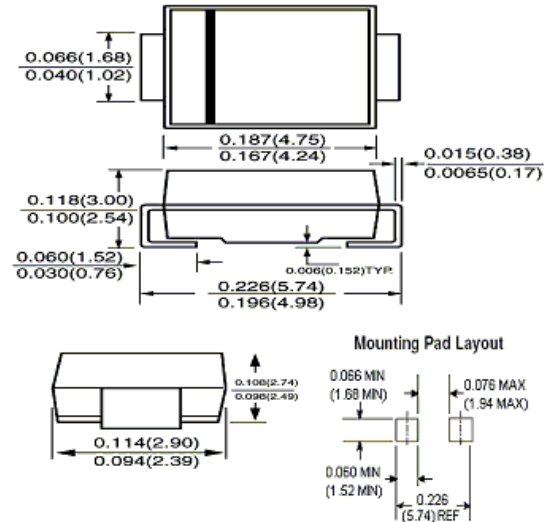
### FEATURE

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

Note:

1. L=120mH; T<sub>j</sub>=T<sub>jmax</sub> 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 6.0mm<sup>2</sup> copper pad to each terminal

# RATINGS AND CHARACTERISTIC CURVES SBYD17D

FIG. 1 - FORWARD CURRENT DERATING CURVE

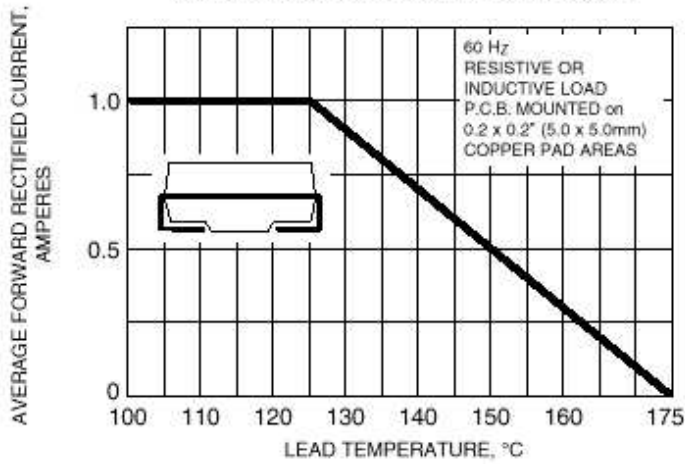


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

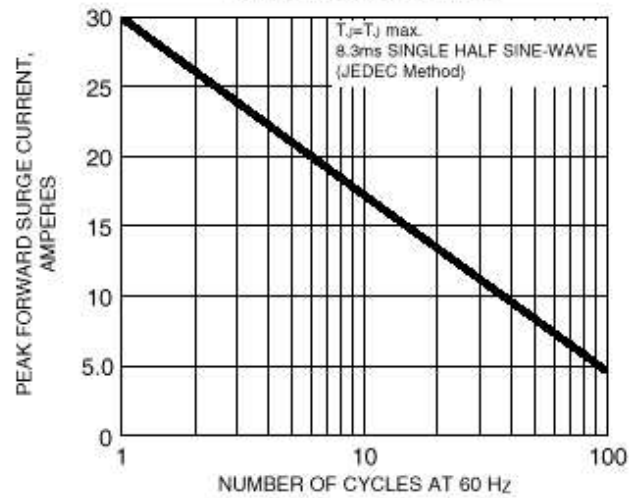


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

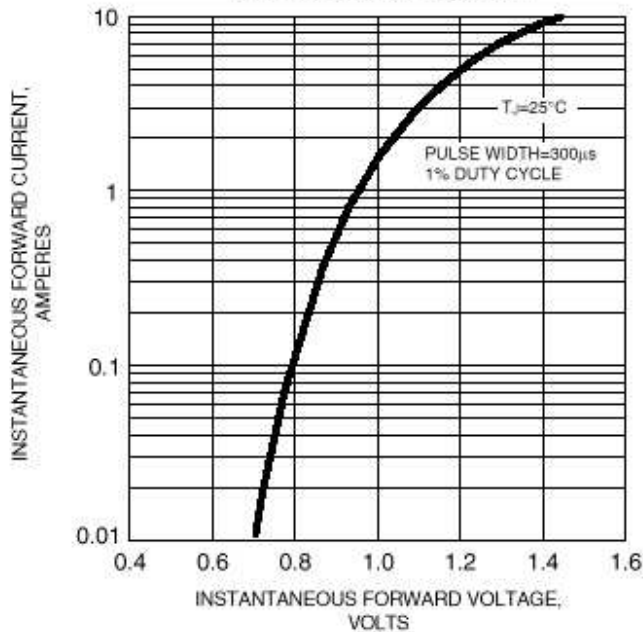


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

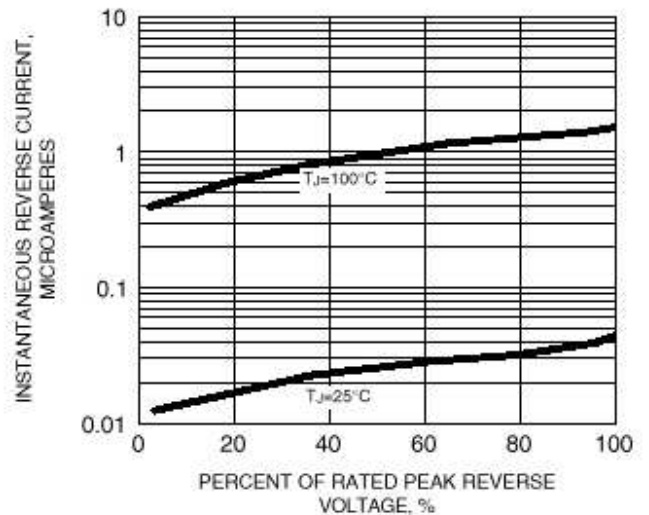


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

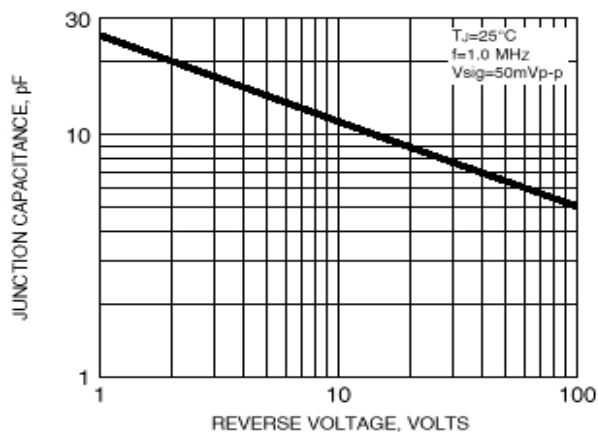


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

