

S12E THRU S20E

**SINTERED GLASS JUNCTION
FAST SWITCHING PLASTIC RECTIFIER**
VOLTAGE:1200 TO 2000V CURRENT: 0.5A



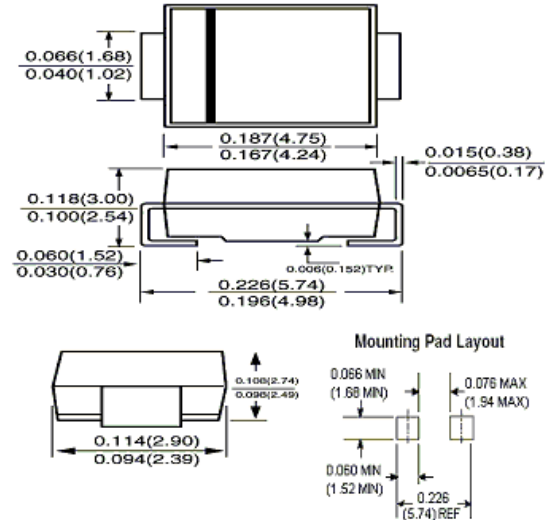
FEATURE

High temperature metallurgic ally bonded construction
Sintered glass cavity free junction
Capability of meeting environmental standard of MIL-S-19500
High temperature soldering guaranteed
350°C/10sec at 5 lbs tension
Operate at Ta =55°C with no thermal run away
Typical Ir<0.2µA

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

GF1



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	S12E	S14E	S16E	S18E	S20E	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	1200	1400	1600	1800	2000	V
Maximum RMS Voltage	V _{rms}	840	980	1120	1360	1400	V
Maximum DC blocking Voltage	V _{dc}	1200	1400	1600	1800	2000	V
Maximum Average Forward Rectified Current	I _{f(av)}	0.5					A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{fsm}	20.0					A
Maximum Forward Voltage at 0.1A and 25°C	V _f	1.8					V
Maximum full load reverse current full cycle Average at 55°C Ambient	I _{r(av)}	100					µA
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	I _r	5.0					µA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	300					nS
Typical Junction Capacitance (Note 2)	C _j	5.0					pF
Typical Thermal Resistance (Note 3)	R(ja)	65.0					°C /W
Storage and Operating Junction Temperature	T _{stg} , T _j	-65 to +175					°C

Note:

- Reverse Recovery Condition I_f =0.5A, I_r =1.0A, I_{rr} =0.25A
- Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
- Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. Board Mounted

RATINGS AND CHARACTERISTIC CURVES S12E THRU S20E

FIG. 1 - FORWARD CURRENT DERATING CURVE

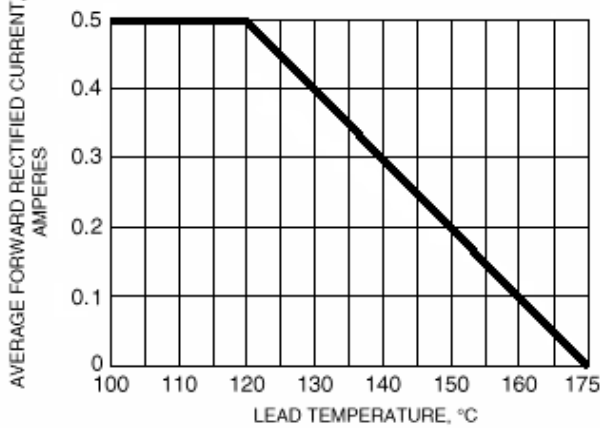


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

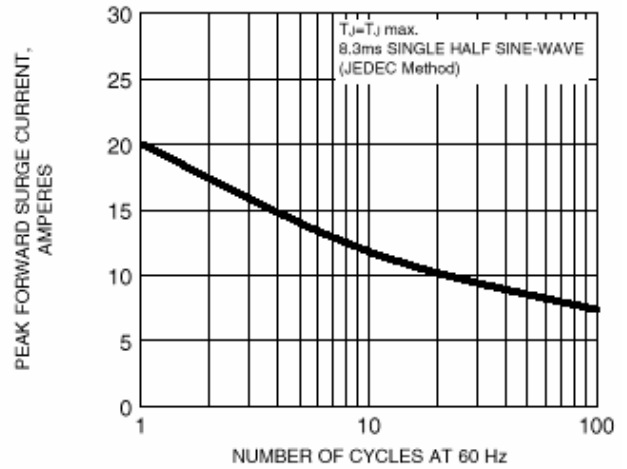


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

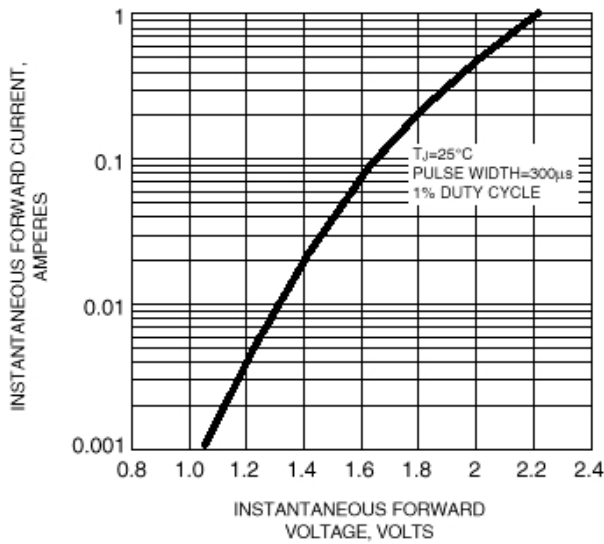


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

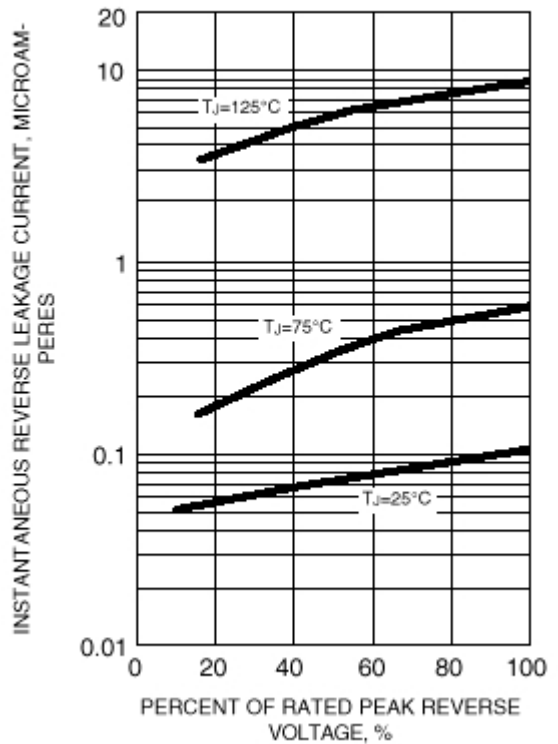


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

