SU1Y-18C

SINTERED GLASS JUNCTION
FAST SWITCHING PLASTIC RECTIFIER
VOLTAGE: 1600V **CURRENT: 0.5A**

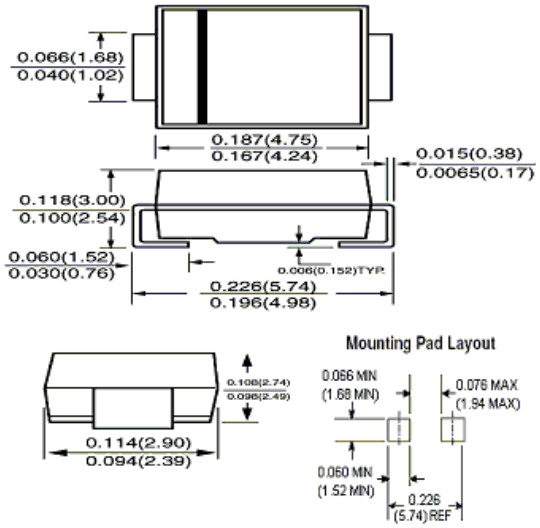
FEATURE

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
Meet Standard of AEC-Q101

MECHANICAL DATA

Terminal: Plated leads solderable per J-STD-002
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	SU1Y-18C	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	1600	V
Maximum RMS Voltage	Vrms	1120	V
Maximum DC blocking Voltage	Vdc	1600	V
Minimum Reverse Breakdown Voltage IR = 100μA	V(BR)R	1650	V
Maximum Average Forward Rectified Current	If(av)	0.5	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	15	A
Maximum Forward Voltage at 0.5A	Vf	3.6	V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =150°C	Ir	5.0 200.0	μA
Maximum Reverse Recovery Time (Note 1)	Trr	75	nS
Typical Junction Capacitance (Note 2)	Cj	5.0	pF
Typical Thermal Resistance (Note 3)	Rth(ja)	65.0	°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. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. Board Mounted

RATINGS AND CHARACTERISTIC CURVES SU1Y-18C

FIG. 1 - FORWARD CURRENT DERATING CURVE

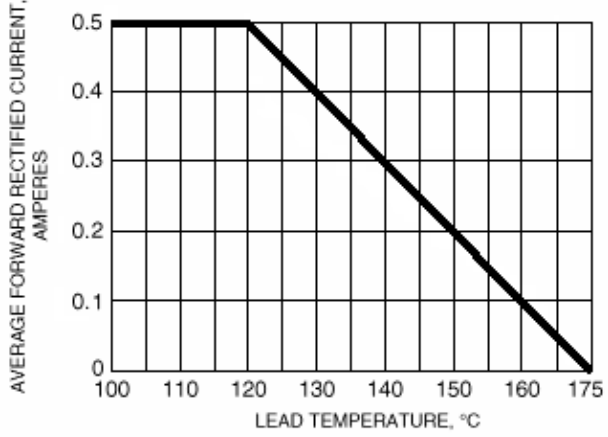


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

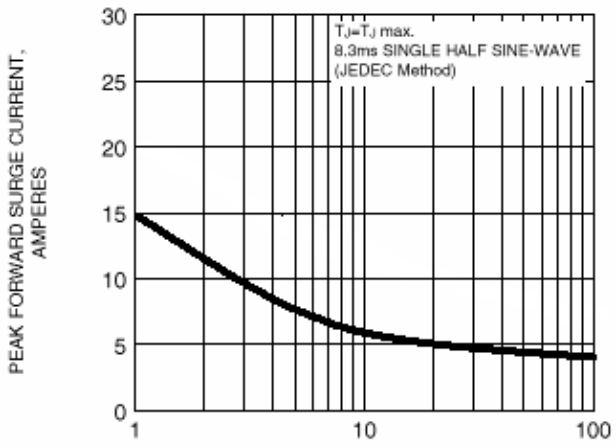
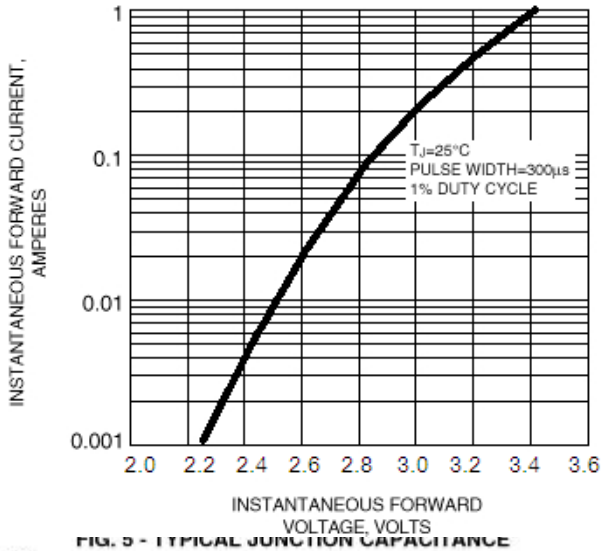


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



CHARACTERISTICS

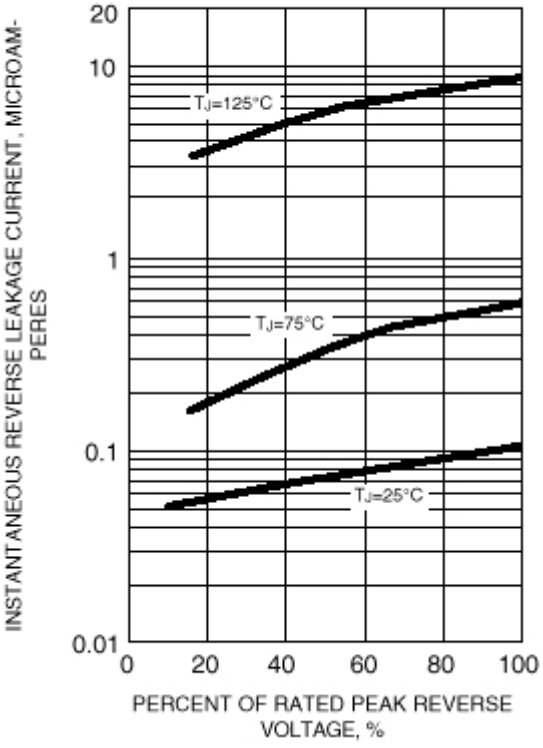


FIG. 5 - TYPICAL JUNCTION CAPACITANCE