SR1D-18C

SINTERED GLASS JUNCTION SURFACE MOUNTED RECTIFIER

VOLTAGE: 200V **CURRENT: 1.0A**

VOLTARISTECH INC.
POWER • PRECISION • INNOVATION

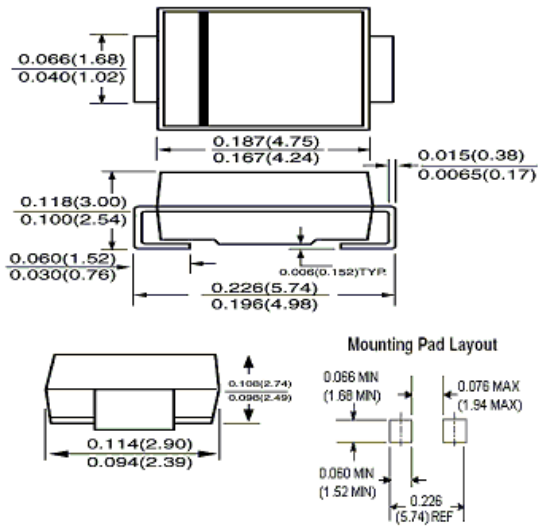
FEATURE

Ideal for surface mount automotive applications
High temperature metallurgic ally bonded construction
Capability of meeting environmental standard of MIL-S-19500
Fast switching for high efficiency
High temperature soldering guaranteed
450℃/5sec at terminal
Complete device submersible temperature of
265℃ for 10 seconds in solder bath
Meet Standard of AEC-Q101

MECHANICAL DATA

Terminal: Solder plated, solderable per J-STD-002
Case: Molded with UL-94 class V-0 recognized Flame Retardant Epoxy over Glass
Polarity: color band denotes cathode end
Mounting position: any

GF1/DO-214BA



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.

	Symbol	SR1D-18C	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	200	V
Maximum RMS Voltage	Vrms	140	V
Maximum DC blocking Voltage	Vdc	200	V
Maximum Average Forward Rectified current T_L =120°C	If(av)	1.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	Ifsm	30.0	A
Maximum Forward Voltage at 1.0A	Vf	1.3	V
Maximum full load reverse current full cycle average Ta = 55℃	Ir(av)	50.0	μA
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	Ir	5.0 100.0	μA
Maximum Reverse Recovery Time (Note1)	Trr	150	nS
Typical Junction Capacitance (Note 2)	Cj	8.5	pF
Typical Thermal Resistance (Note 3)	Rth(ja) Rth(jl)	85.0 28.0	°C / W
Storage and Operating Junction Temperature Range	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 Vr=4.0V
3. Thermal Resistance from Junction to Ambient and from junction to lead, P.C.B. Mounted on 0.2×0.2″(5.0×5.0mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES SR1D-18C

FIG. 1 - FORWARD CURRENT DERATING CURVE

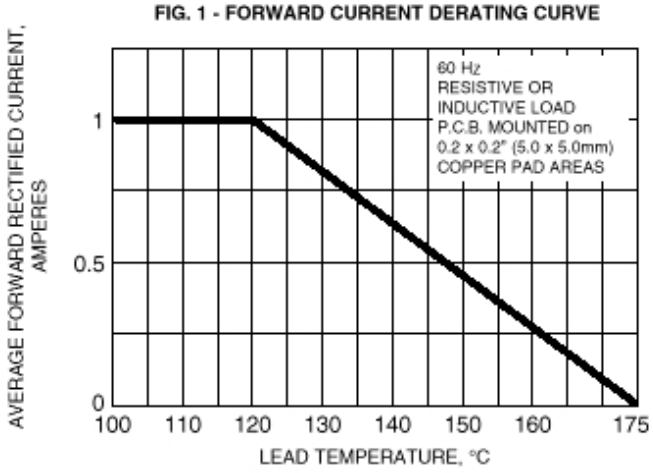


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

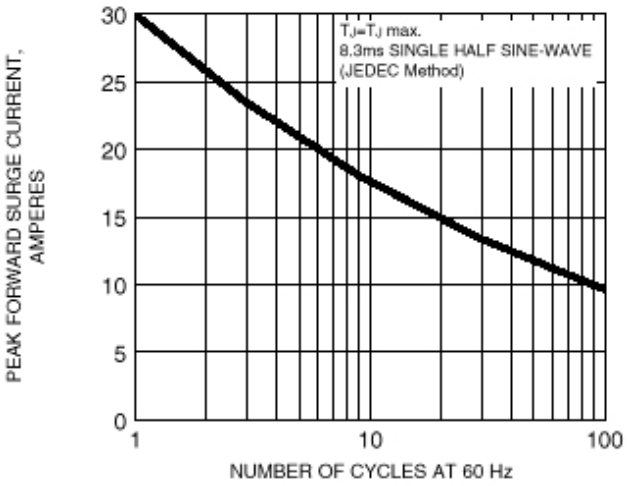


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

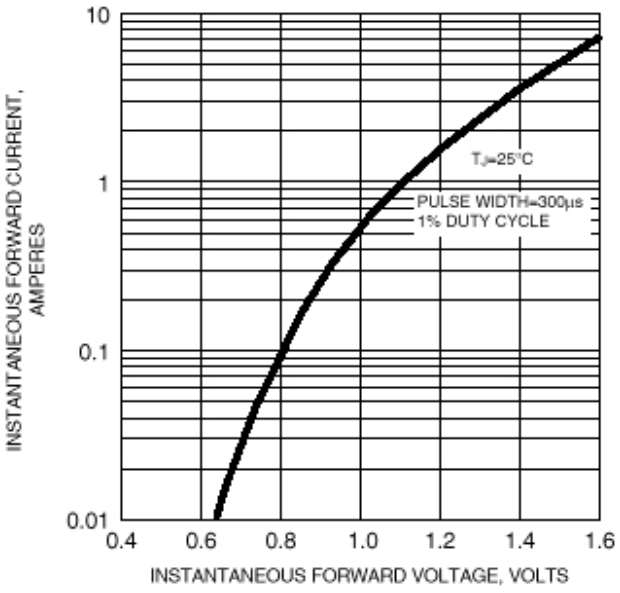


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

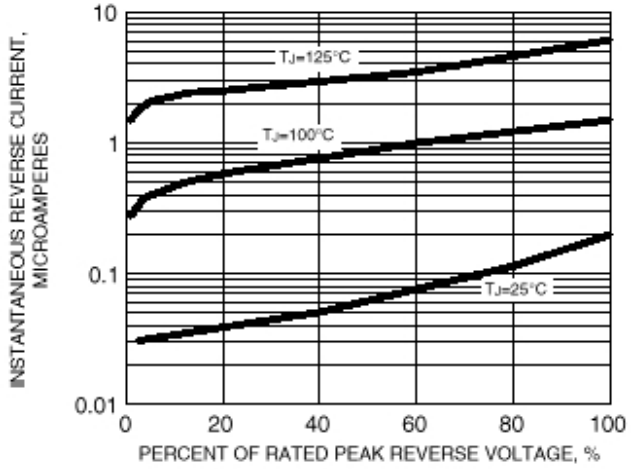


FIG. 5 - TYPICAL JUNCTION CAPACITANCE