GR3A THRU GR3M

SURFACE MOUNT FAST SWITCHING RECTIFIER

VOLTAGE：50 TO 1000V **CURRENT： 3.0A**

VOLTARISTECH INC.
POWER · PRECISION · INNOVATION

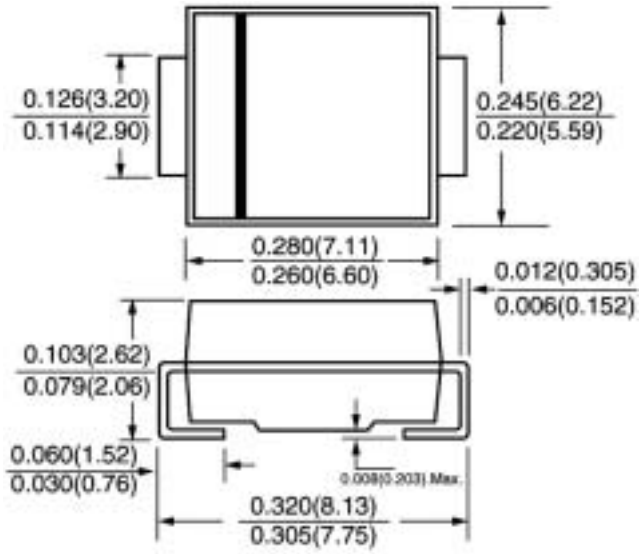
FEATURE

Ideal for surface mount pick and place applications
Low profile package
Built-in strain relief
High surge capability
High temperature soldering guaranteed
260°C/10sec/at terminals
Glass passivated chip
Fast recovery time for high efficiency

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

SMC／DO-214AB



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	GR 3A	GR 3B	GR 3D	GR 3G	GR 3J	GR 3K	GR 3M	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	Vrms	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	Vdc	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 3/8 ″ lead length at T_L =75°C	If(av)	3.0							A
Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load	Ifsm	100.0							A
Maximum Forward Voltage at rated forward current	Vf	1.3							V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	Ir	10.0 350.0							μA μA
Maximum Reverse Recovery Time (Note1)	Trr	150				250	500		nS
Typical Junction Capacitance (Note 2)	Cj	60.0							pF
Typical Thermal Resistance (Note 3)	R(jl)	15.0							°C//W
Storage and Operating Junction Temperature	Tstg, Tj	-50 to +150							°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 terminal mounted on 5×5mm copper pad area

RATINGS AND CHARACTERISTIC CURVES GR3A THRU GR3M

FIG. 1 - FORWARD CURRENT DERATING CURVE

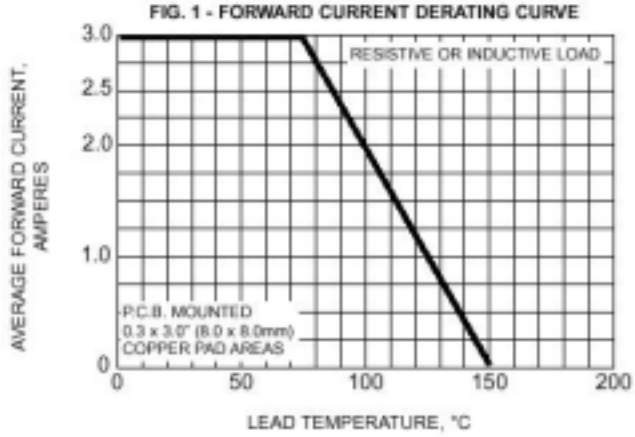


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

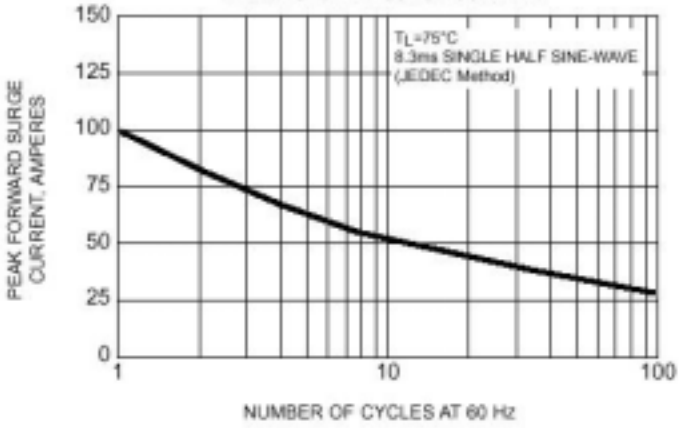


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

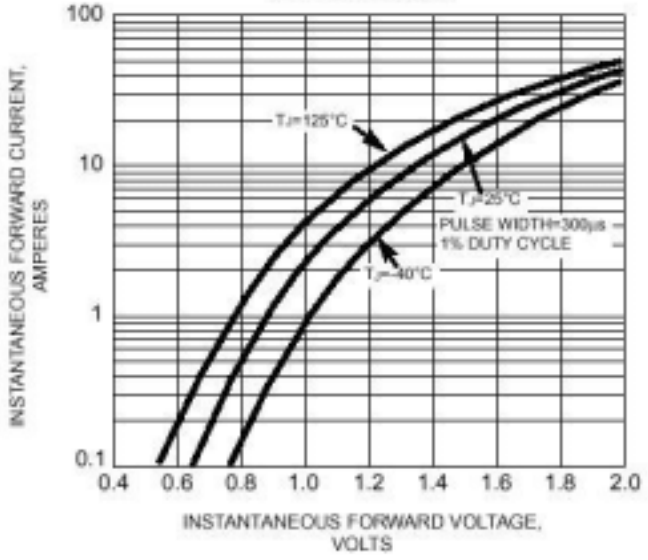


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

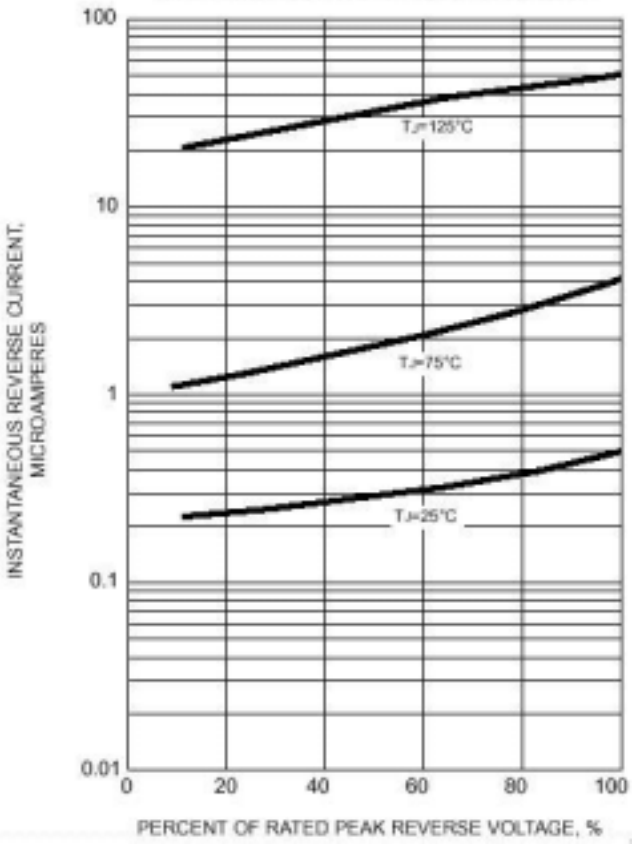


FIG. 5 - TYPICAL TRANSIENT THERMAL IMPEDANCE