

FAST RECOVERY SURFACE MOUNT RECTIFIERS

PRODUCT SUMMARY

Reverse Voltage 50 to 1000 Volts
 Forward current 3.0 Amperes



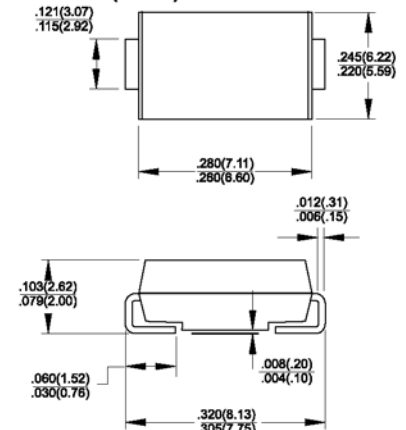
FEATURES

- For surface mounted application
- Glass passivated junction chip
- Built-in strain relief, ideal for automated placement
- Plastic material used carries Underwriters Laboratory Classification 94V-O
- Fast switching for high efficiency
- High temperature soldering:
 250°C /10 seconds at terminals

MECHANICAL DATA

- Cases: Molded plastic
- Terminals: Solder plated
- Polarity: Indicated by cathode band
- Weight: 0.007 ounce, 0.21 gram

DO-214AB (SMC)



 Pb-free; RoHS-compliant

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

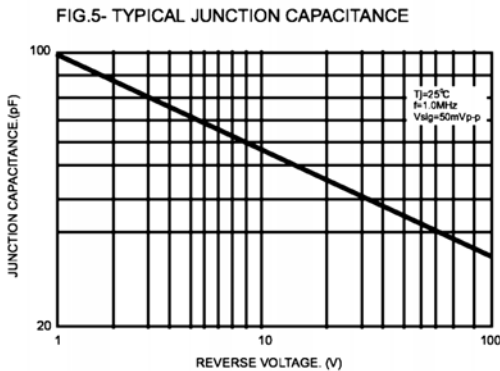
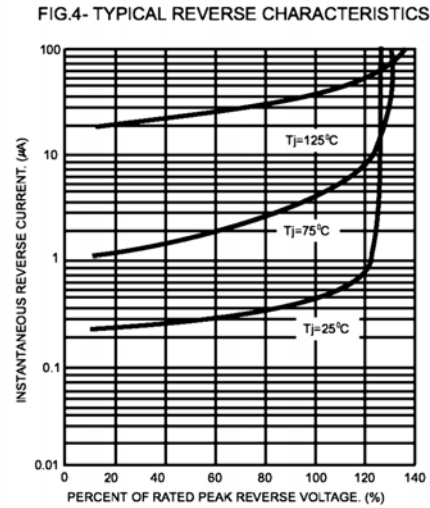
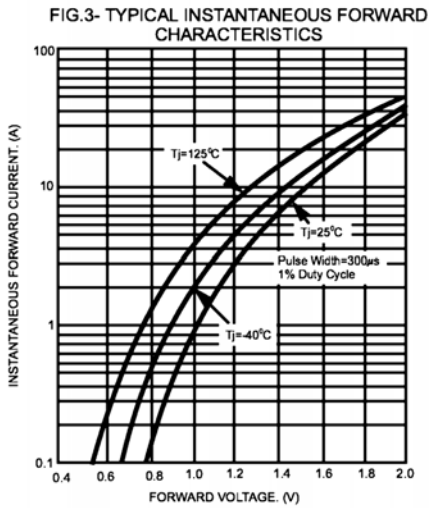
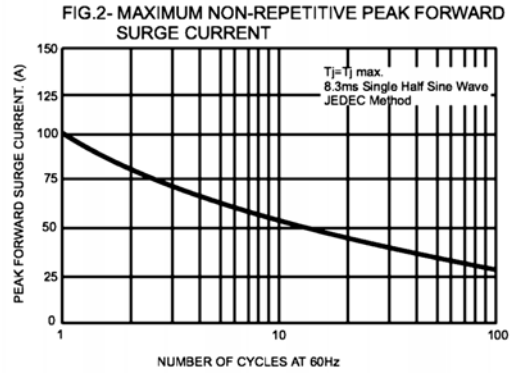
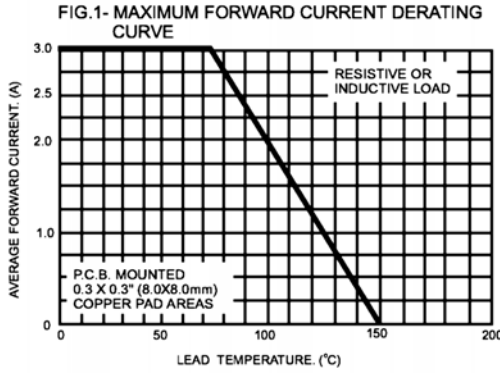
Ratings at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%

Parameter	Symbols	GR3A	GR3B	GR3D	GR3G	GR3J	GR3K	GR3M	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current See Fig. 1 @ $T_L=75^\circ\text{C}$	$I_{(AV)}$	3.0							Amps
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	100.0							Amps
Maximum instantaneous forward voltage @ 3.0A	V_F	1.3							Volts
Maximum DC reverse current at rated DC blocking voltage	I_R	10.0 25.0							μA
Maximum reverse recovery time (Note 1)	t_{rr}	150				250	500		nS
Typical junction capacitance (Note 2)	C_J	75							pF
Typical thermal resistance (Note 3)	R_{JA} R_{JL}	50.0 15.0							$^\circ\text{C/W}$
Operating temperature range	T_J	-55 to +150							$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150							$^\circ\text{C}$

- Notes:**
1. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$
 2. Measured at 1 MHz and Applied $V_r=4.0$ Volts
 3. Thermal Resistance from Junction to Ambient and from Junction to Lead Mounted on P.C.B. with 0.3" x 0.3" (8.0 x 8.0 mm) Copper Pad Areas.

RATINGS AND CHARACTERISTIC CURVES

($T_A=25\text{ }^\circ\text{C}$ unless otherwise noted)



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