

Features

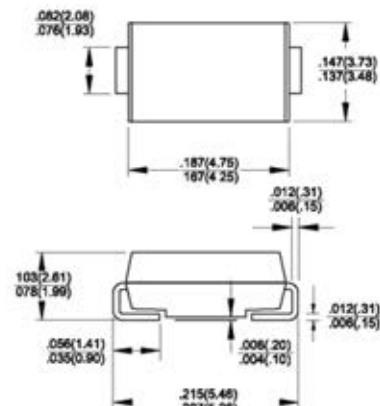
- ◆ Fast switching for high efficiency
- ◆ For surface mounted applications
- ◆ Glass passivated chip
- ◆ Low reverse leakage current
- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ Plastic material has UL flammability classification 94V-0



DO-214AA (SMB)

Mechanical Data

- ◆ Case : Molded plastic
- ◆ Polarity : Indicated by cathode band
- ◆ Weight : 0.003 ounce, 0.093 gram



Dimensions in inches and (millimeters)

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	GR3AB	GR3BB	GR3DB	GR3GB	GR3JB	GR3KB	GR3MB	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 @ $T_J = 75^\circ\text{C}$	$I_{(AV)}$					3.0			Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{SM}					100.0			Amps
Maximum forward voltage at 3.0A DC	V_F					1.3			Volts
Maximum DC reverse current at rated DC blocking voltage @ $T_J = 25^\circ\text{C}$ @ $T_J = 125^\circ\text{C}$	I_R					5.0 250			μA
Maximum reverse recovery time (Note 1)	t_r					150	250	500	μs
Typical junction capacitance (Note 2)	C_J					50			pF
Typical thermal resistance (Note 3)	R_{JA} $R_{J\theta}$					50.0 10.0			$^\circ\text{C/W}$
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: $I_L = 0.5\text{A}$, $I_H = 1.0\text{A}$, $I_{RM} = 0.25\text{A}$
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.
 3. Thermal Resistance Junction to Ambient and from Junction to Lead



RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

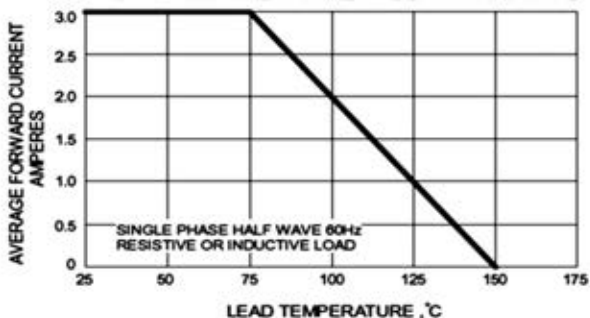


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

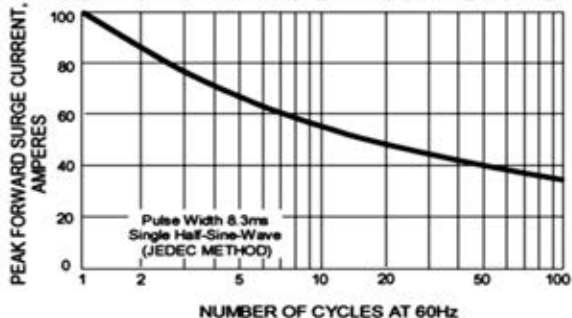


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

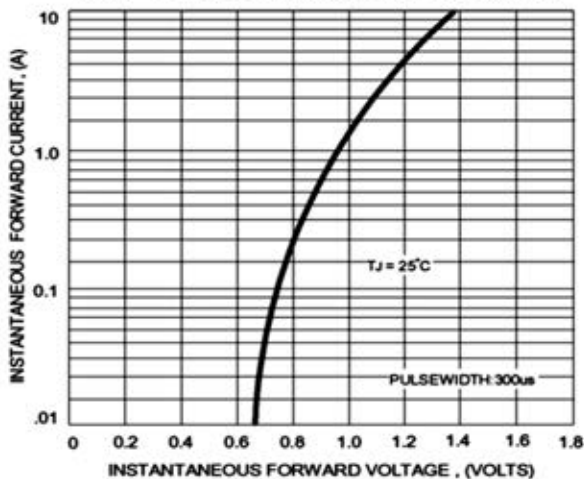


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

