



SYNSEMI SEMICONDUCTOR

GROAA thru GROMA

1.5 Amps. Fast Recovery Surface Mount Rectifiers
Voltage Range 50 to 1000 Volts Forward Current 1.5 Amperes

Features

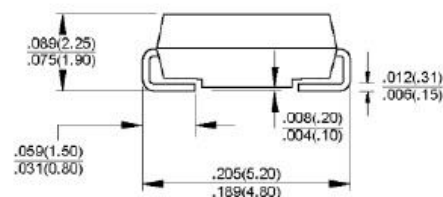
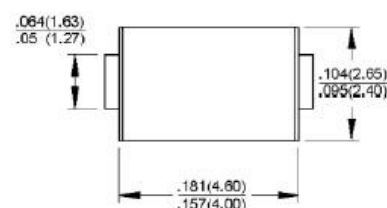
- ◆ Fast switching for high efficiency
- ◆ For surface mounted applications
- ◆ Glass passivated chip
- ◆ Low reverse leakage current
- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ Plastic material has UL flammability classification 94V-0

Mechanical Data

- ◆ Case : Molded plastic
- ◆ Polarity : Indicated by cathode band
- ◆ Weight : 0.002 ounce, 0.064 gram



DO-214AC (SMA)



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	GROAA	GROBA	GRODA	GROGA	GROJA	GROKA	GROMA	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 @ $T_L=90^{\circ}\text{C}$	$I_{(AV)}$	1.5							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0							Amps
Maximum forward voltage at 1.5A DC	V_F	1.3							Volts
Maximum DC reverse current @ $T_J=25^{\circ}\text{C}$ at rated DC blocking voltage @ $T_J=125^{\circ}\text{C}$	I_R	5.0 200							μA
Maximum reverse recovery time (Note 1)	t_{rr}	150				250	500		nS
Typical junction capacitance (Note 2)	C_j	30							pF
Typical thermal resistance (Note 3)	$R_{\theta JL}$	20							$^{\circ}\text{C/W}$
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: $I_F = 0.5A$, $I_R = 1.0A$, $V_{RR} = 0.25A$
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.
 3. Thermal Resistance Junction to Lead

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RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

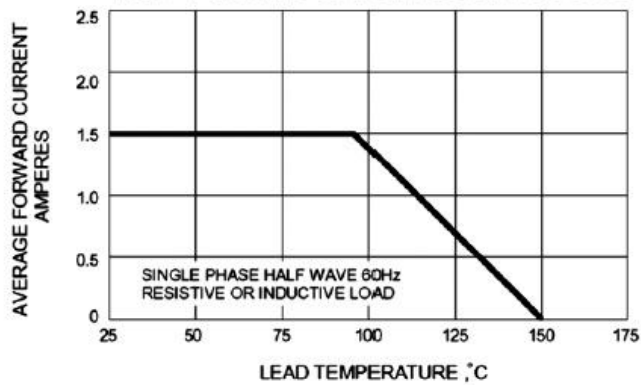


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

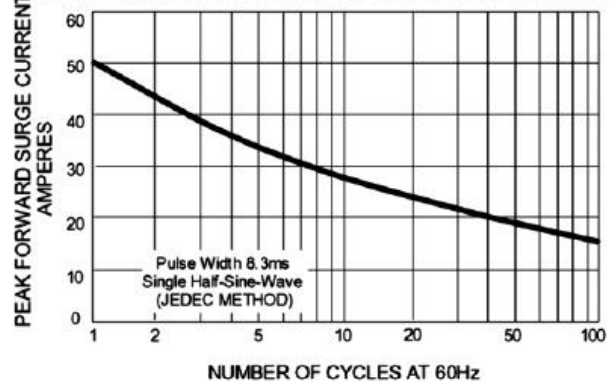


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

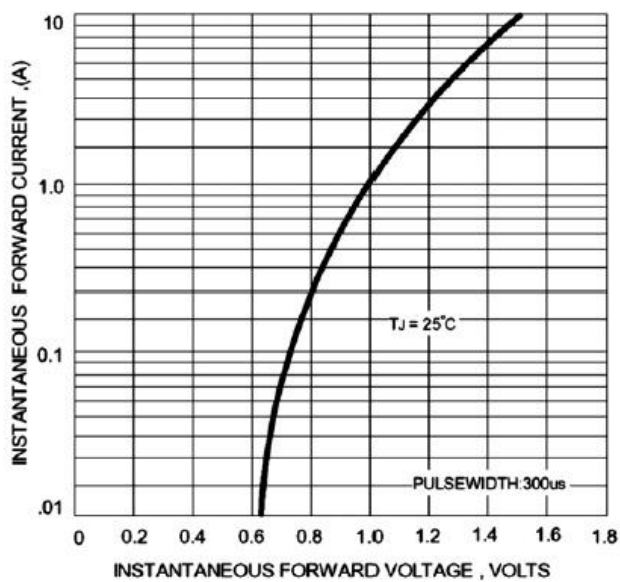


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

