

Surface Mount Rectifiers

RGL1A--RGL1M

FEATURES

- Glass passivated chip junction
- For surface mount applications
- High temperature metallurgically bonded construction
- Cavity-free glass passivated junction
- Plastic package has underwriters laboratories flammability classification 94V-0
- High temperature soldering guaranteed: 450 °C/5 seconds at terminals. Complete device submersible temperature of 265°C for 10 seconds in solder bath



Lead-free



MECHANICAL DATA

- Case: JEDEC DO-213AA, molded plastic over passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.0014 ounces, 0.036grams
- Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

		RGL1A	RGL1B	RGL1D	RGL1G	RGL1J	RGL1K	RGL1M	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current @T _L =75℃	I _(AV)	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	25							A
Maximum instantaneous forward voltage at 1.0 A	V _F	1.3							V
Maximum reverse current @T _A =25℃ at rated DC blocking voltage @T _A =125℃	I _R	5.0 50.0							μ A
Typical reverse recovery time(NOTE1)	t _{rr}	150				250	500		us
Typical thermal resistance (NOTE 2)	R _{θJA}	150							℃/W
Operating junction temperature range	T _J	- 55 --- + 175							℃
Storage temperature range	T _{STG}	- 55 --- + 175							℃

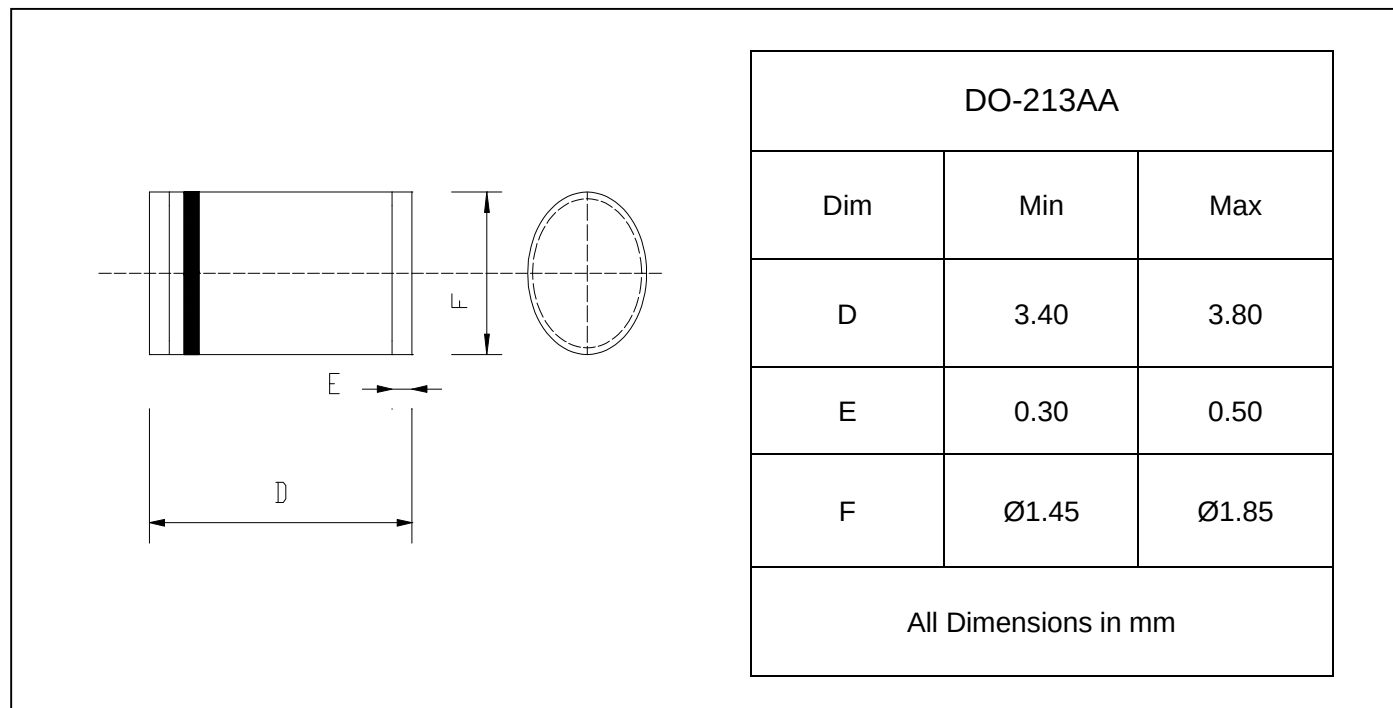
NOTES: 1. Measured with $I_F=0.5A$, $I_R=1.0A$, $I_{rr}=0.25A$

2. Thermal resistance from junction to ambient, 0.24×0.24"(6.0×6.0mm) copper pads to each terminal.

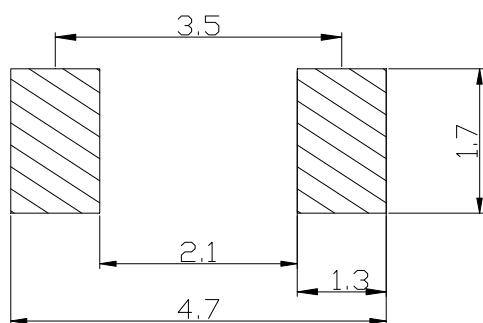
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PACKAGE OUTLINE DIMENSIONS



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
RGL1A--RGL1M	DO-213AA	2000/Tape&Reel

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FIG.1 – FORWARD CURRENT DERATING CURVE

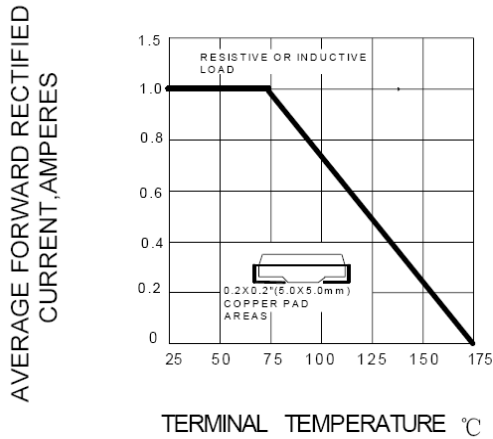


FIG.2 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

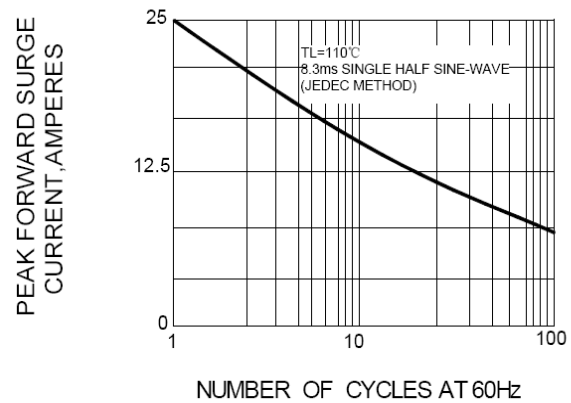


FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

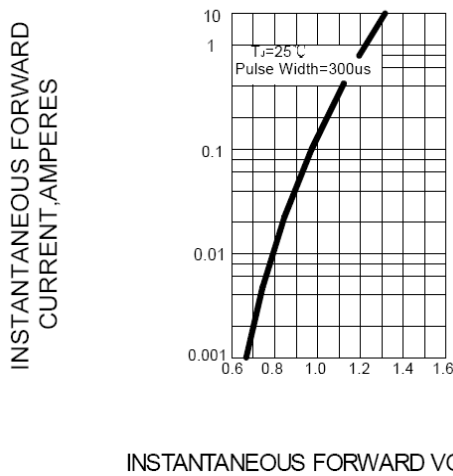


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

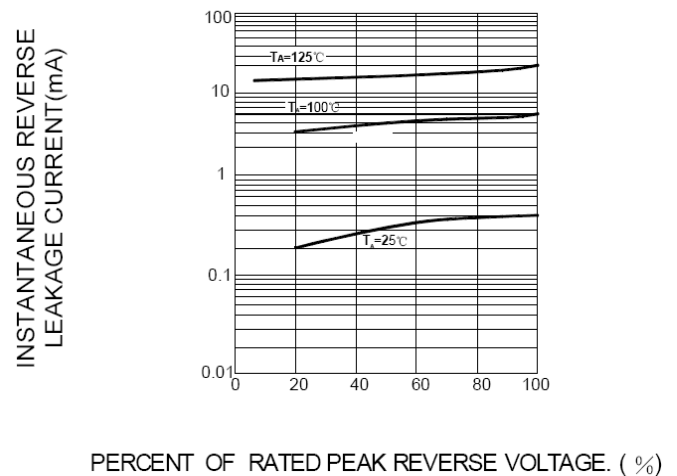
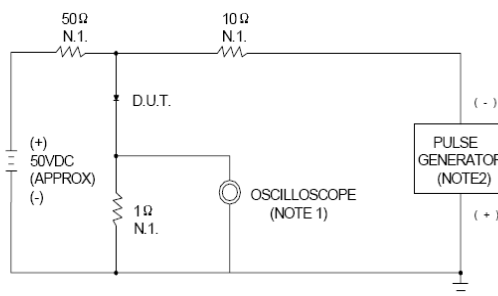


FIG.5 – REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. RISE TIME=7ns MAX. INPUT IMPEDANCE=1MΩ, 22pF
2. RISE TIME=10ns MAX. SOURCE IMPEDANCE=50Ω

