

Surface Mount Rectifiers

RGL41A--RGL41M

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 sub-mersible temperature of 265°C for 10 seconds in solder bath



MECHANICAL DATA

- Case: JEDEC DO-213AB, molded plastic over passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.0046 ounces, 0.116 grams
- 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%.

		RGL41A	RGL41B	RGL41D	RGL41G	RGL41J	RGL41K	RGL41M	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 _T =55℃	I _(AV)	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	30							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 junction capacitance (Note 2)	C _j	15							pF
Typical thermal resistance (NOTE3)	R _{θJA}	75							℃/W
Operating junction temperature range	T _J	- 55 --- + 175							℃
Storage temperature range	T _{STG}	- 55 --- + 175							℃

NOTE: 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $t_{rr} = 0.25\text{A}$

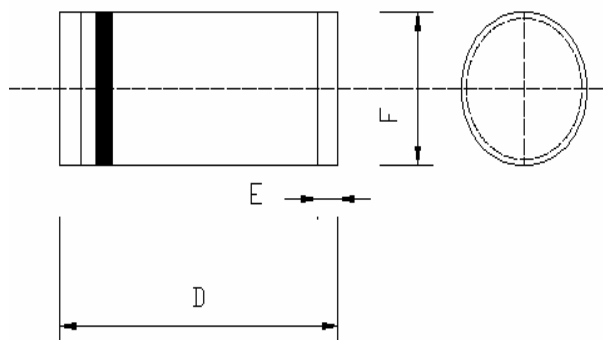
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

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

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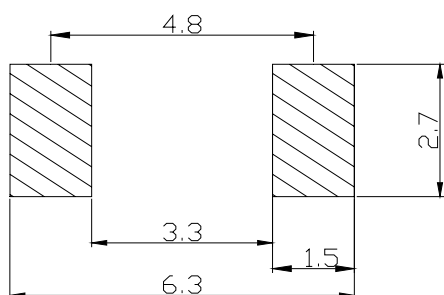
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PACKAGE OUTLINE DIMENSIONS



DO-213AB		
Dim	Min	Max
D	4.70	5.20
E	0.25	0.55
F	2.45	2.85
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
RGL41A--RGL41M	DO-213AB	5000/Tape&Reel

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FIG.1 – FORWARD CURRENT DERATING CURVE

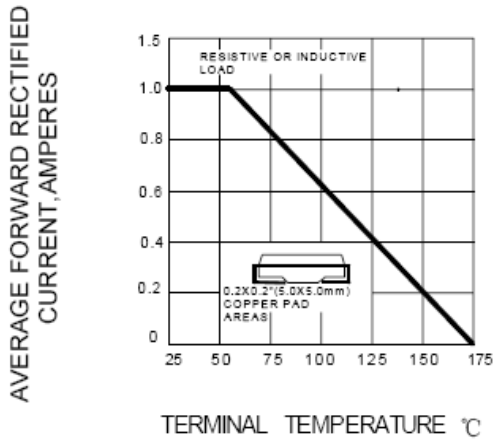


FIG.2 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

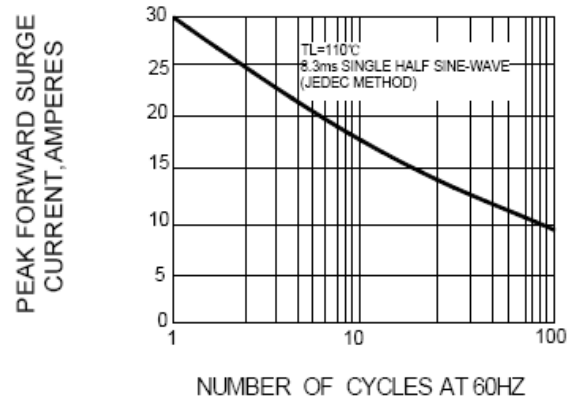


FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

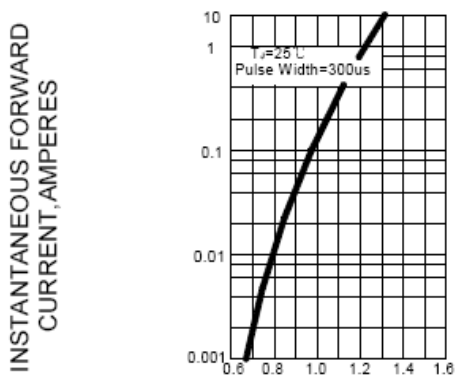


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

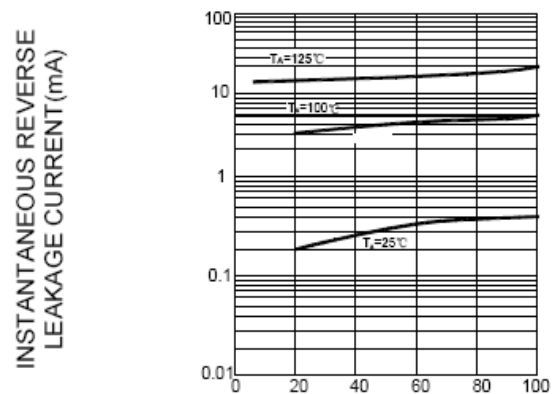


FIG.5 – TYPICAL JUNCTION CAPACITANCE

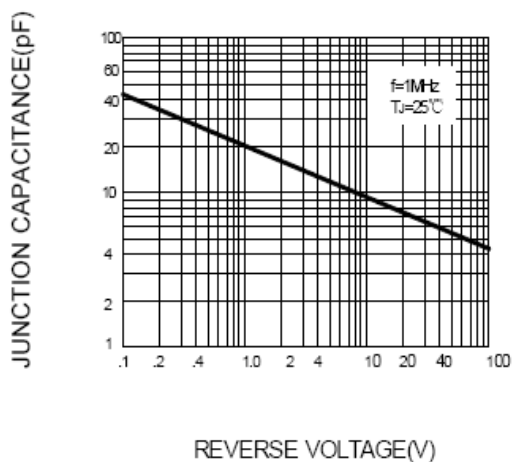


FIG.6 – TYPICAL TRANSIENT THERMAL IMPEDANCE

