

## SILICON RECTIFIER

**VOLTAGE RANGE 50 to 1000 Volts CURRENT 2.0 Amperes**

### FEATURES

- \* Low cost
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability

### MECHANICAL DATA

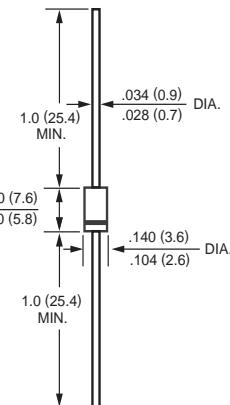
- \* Case: Molded plastic
- \* Epoxy: Device has UL flammability classification 94V-O
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 0.38 gram

### 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%.



**DO-15**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS** (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	RL201	RL202	RL203	RL204	RL205	RL206	RL207	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at TA = 75°C	I <sub>O</sub>				2.0				Amps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>				70				Amps
Typical Junction Capacitance (Note)	C <sub>J</sub>			20					pF
Typical Thermal Resistance	R <sub>θ JA</sub>			40					°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>			-55 to +150					°C

**ELECTRICAL CHARACTERISTICS** (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	RL201	RL202	RL203	RL204	RL205	RL206	RL207	UNITS
Maximum Instantaneous Forward Voltage at 2.0A DC	V <sub>F</sub>			1.1					Volts
Maximum DC Reverse Current	I <sub>R</sub>	@ TA = 25°C			5.0				uAmps
at Rated DC Blocking Voltage			@ TA = 100°C		50				uAmps
Maximum Full Load Reverse Current Average, Full Cycle .375" (9.5mm) lead length at TL = 75°C					30				uAmps

NOTES : Measured at 1 MHz and applied reverse voltage of 4.0 volts

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## RATING AND CHARACTERISTIC CURVES ( RL201 THRU RL207 )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

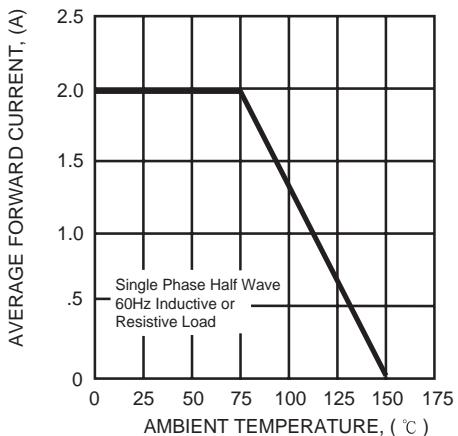


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

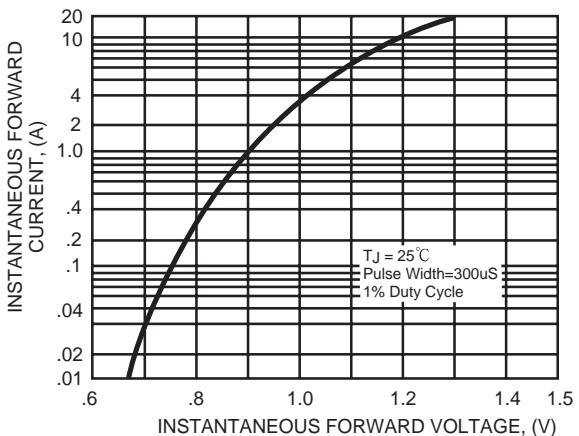


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

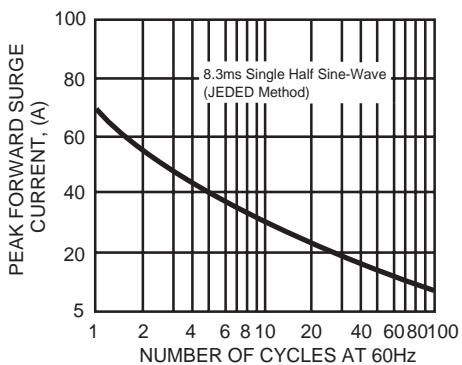


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

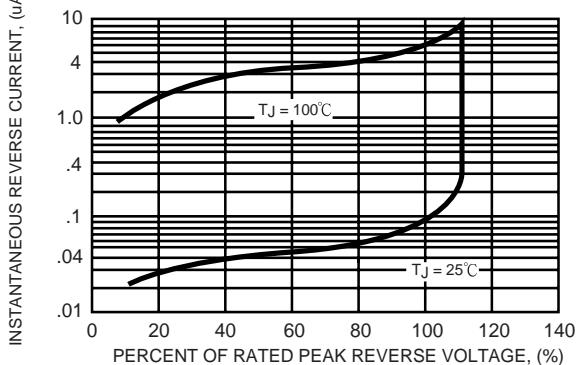


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

