

SILICON RECTIFIER

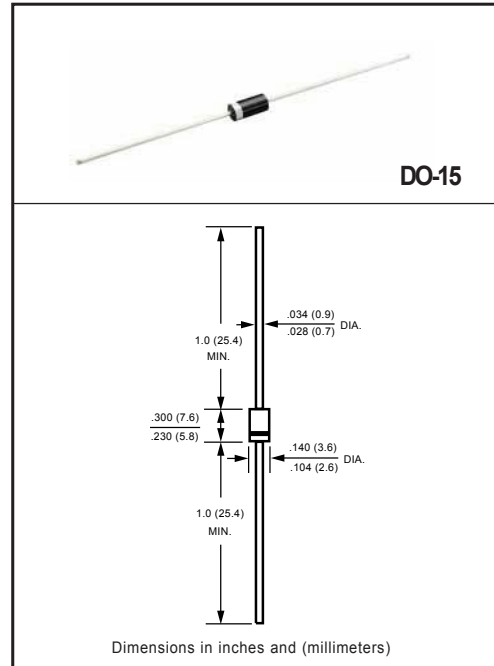
VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.5 Amperes

FEATURES

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

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.38 grams



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%.

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

RATINGS	SYMBOL	RL151	RL152	RL153	RL154	RL155	RL156	RL157	UNITS
Maximum Recurrent 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 at T _A = 75 °C	I _O	1.5							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	60							Amps
Typical Thermal Resistance (Note 3)	R _{θJA}	50							°C/W
	R _{θJL}	20							
Typical Junction Capacitance (Note 2)	C _J	20							pF
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to + 150							°C

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

CHARACTERISTICS	SYMBOL	RL151	RL152	RL153	RL154	RL155	RL156	RL157	UNITS
Maximum Instantaneous Forward Voltage at 1.5A DC	V _F	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T _A = 25°C	5							uAmps
	@T _A = 100°C	50							
Maximum Fully Load Reverse Current Average, Fully Cycle .375" (9.5mm) lead length at T _L =75°C		30							

- NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
2. Typical Thermal Resistance : At 9.5mm lead lengths,PCB mounted.
3. "Fully ROHS compliant", "100% Sn plating (Pb-free)"

RATING AND CHARACTERISTICS CURVES (RL151 THRU RL157)

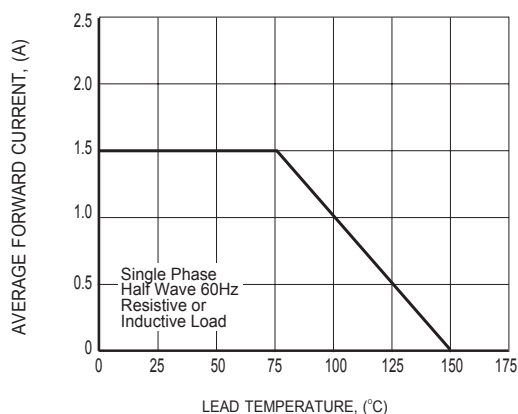


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

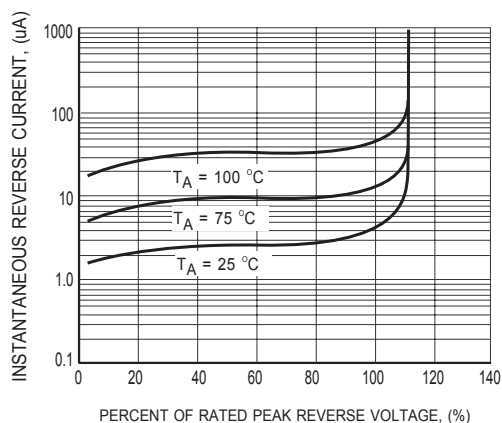


FIG.2 TYPICAL REVERSE CHARACTERISTICS

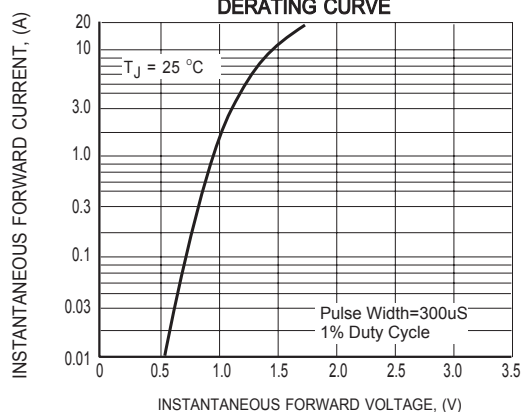


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

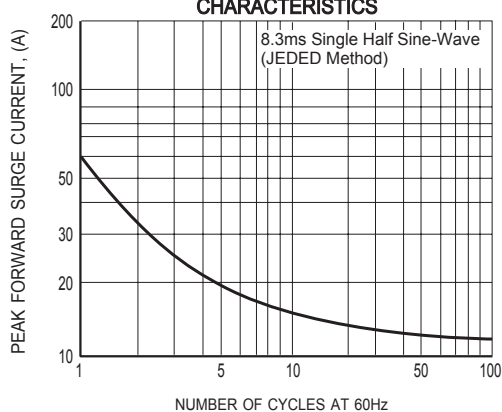


FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

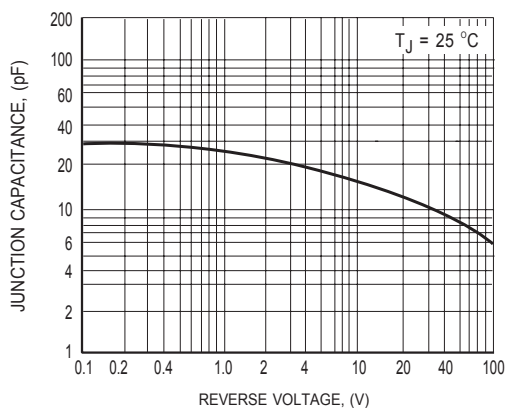


FIG.5 TYPICAL JUNCTION CAPACITANCE