

GLASS PASSIVATED SILICON RECTIFIER

VOLTAGE RANGE 50 to 800 Volts CURRENT 8.0 Amperes

FEATURES

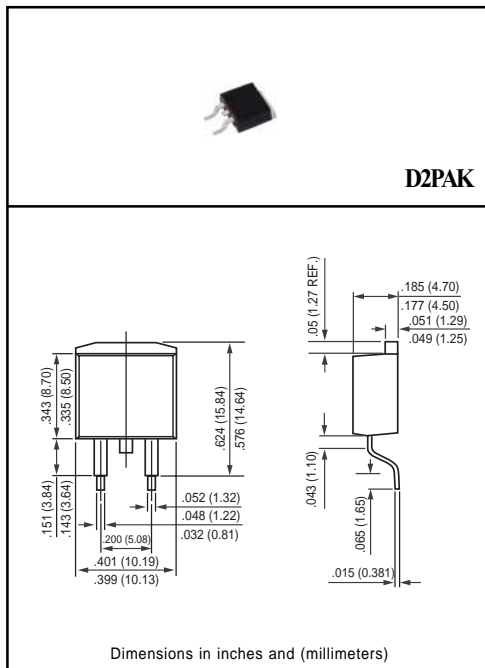
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * High surge capability
- * High reliability

MECHANICAL DATA

- * Case: D2PAK molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 2.2 grams
- * Polarity: As marked

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 (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	RL801S	RL802S	RL803S	RL804S	RL805S	RL806S	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	Volts
Maximum Average Forward Rectified Current TC = 100°C (Note 1)	I _O	8.0						Amps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	200						Amps
Typical Thermal Resistance	R _{θJC}	3.6						°C/W
Typical Junction Capacitance (Note 2)	C _J	40						pF
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to + 150						°C

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

CHARACTERISTICS	SYMBOL	RL801S	RL802S	RL803S	RL804S	RL805S	RL8506S	UNITS
Maximum Instantaneous Forward Voltage at 8.0A DC	V _F	1.1						Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T _C = 25°C	10						uAmps
	@T _C = 100°C	100						

NOTES : 1. Case Temperature Measured at Metal Tab.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. Suffix " R " = Common Anode.

RATING AND CHARACTERISTIC CURVES (RL801S THRU RL806S)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

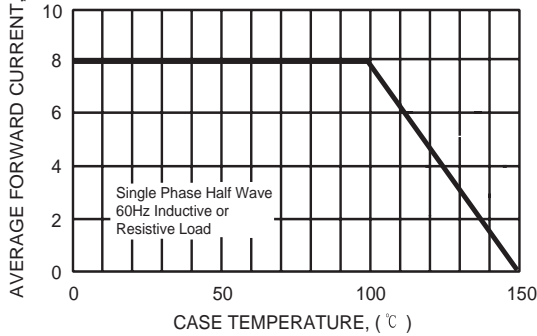


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

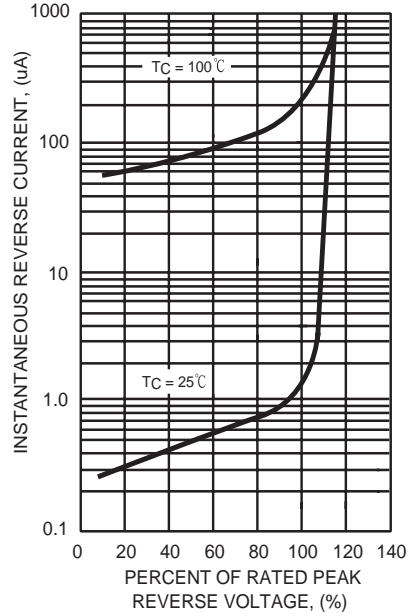


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

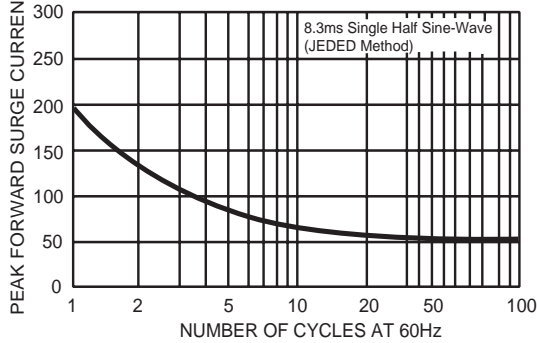


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

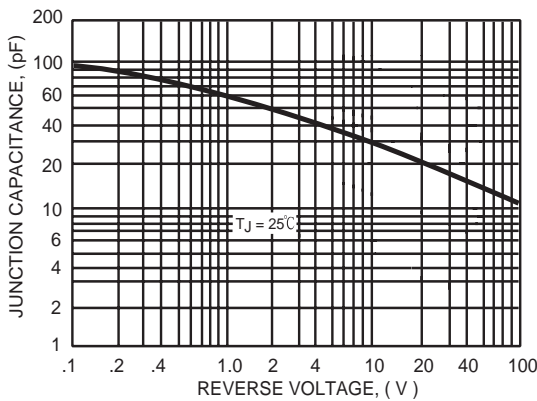


FIG. 5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

