



**GLASS PASSIVATED SILICON RECTIFIER**

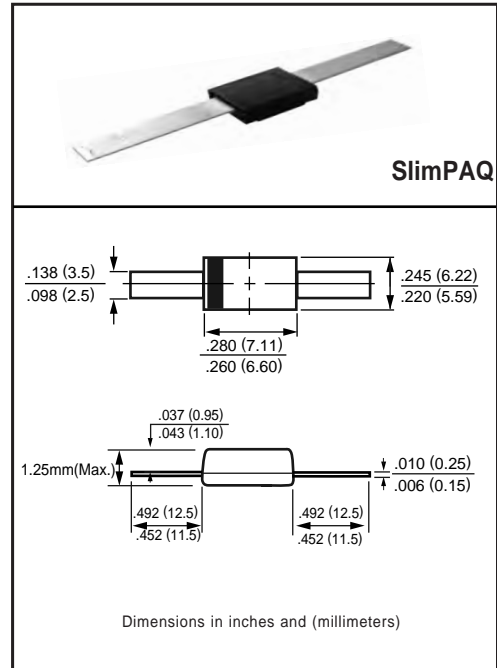
**VOLTAGE 400 Volts CURRENT 8 Ampere**

**FEATURES**

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

**MECHANICAL DATA**

- \* Case: Slim PAQ
- \* Epoxy: Device has UL flammability classification 94V-O
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
resistive or inductive load.

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

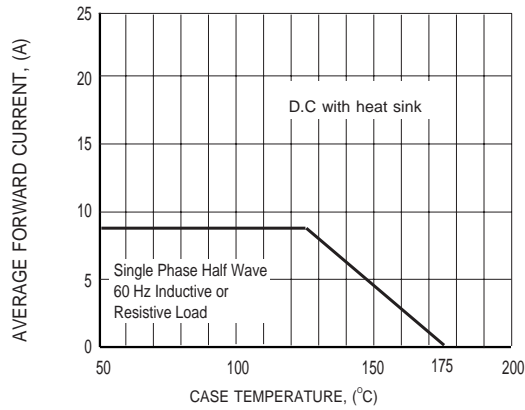
RATINGS	SYMBOL	SPAC804F	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	400	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	280	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	400	Volts
Maximum Average Forward Rectified Current at T <sub>C</sub> = 125 °C	I <sub>O</sub>	8	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	125	Amps
Typical Current Square Time	I <sup>2</sup> T	64.8	A <sup>2</sup> S
Typical Thermal Resistance (Note 1)	R <sub>θJC</sub>	6.25	°C/W
	R <sub>θJA</sub>	12.5	
	R <sub>θJL</sub>	3.1	
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	40	pF
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 175	°C

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

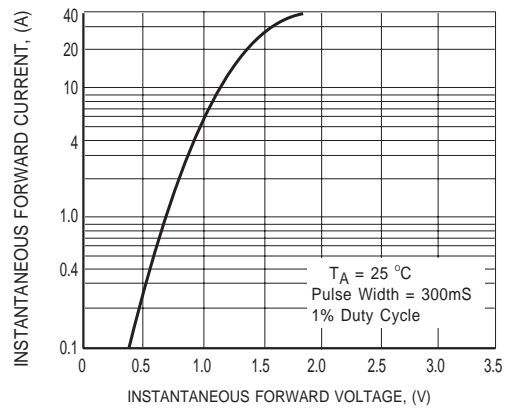
CHARACTERISTICS	SYMBOL	SPAC804F	UNITS
Maximum Instantaneous Forward Voltage at 8 A DC	V <sub>F</sub>	1.1	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	@T <sub>A</sub> = 25°C	10
		@T <sub>A</sub> = 100°C	100

- NOTES : 1. Thermal Resistance : Heat-sink case mounted or if PCB mounted.  
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.  
 3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".  
 4. Suffix "R" for Reverse Polarity.  
 5. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

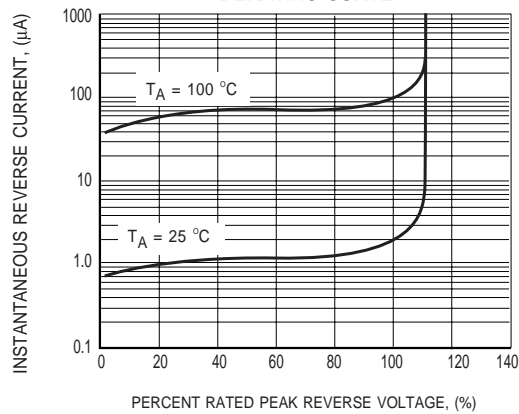
## RATING AND CHARACTERISTICS CURVES ( SPAC804F )



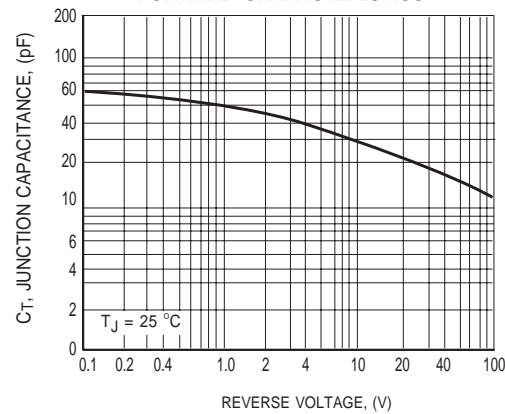
**FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE**



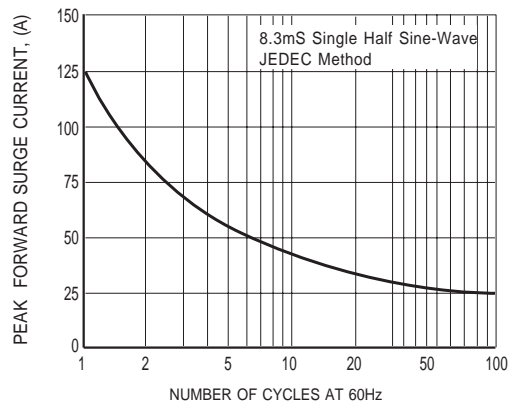
**FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.3 TYPICAL REVERSE CHARACTERISTICS**



**FIG.4 TYPICAL JUNCTION CAPACITANCE**



**FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**

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