

**SPA2505G**

**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER  
VOLTAGE 600 Volts CURRENT 25 Amperes**

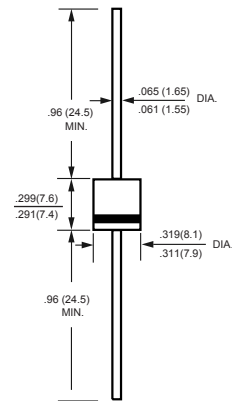
**FEATURES**

- \* Low leakage
- \* Low forward voltage
- \* Surge overload rating : 300 amperes peak
- \* Mounting position: Any
- \* Ideal for printed circuit boards
- \* High forward surge current capability

**MECHANICAL DATA**

- \* Epoxy: Device has UL flammability classification 94V-0

**R-7**



Dimensions in inches and (millimeters)

**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	SPA2505G	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	600	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	420	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	600	Volts
Maximum Average Forward Rectified Current at T <sub>L</sub> = 125 °C	I <sub>O</sub>	25	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	400	Amps
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 175	°C

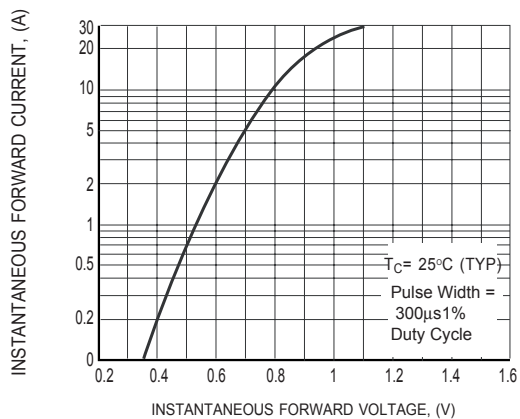
**ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)**

CHARACTERISTICS	SYMBOL	SPA2505G	UNITS
Maximum Instantaneous Forward Voltage at 25 A DC	V <sub>F</sub>	1.1	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T <sub>A</sub> = 25°C	5.0	uAmps
	@T <sub>A</sub> = 100°C	200	

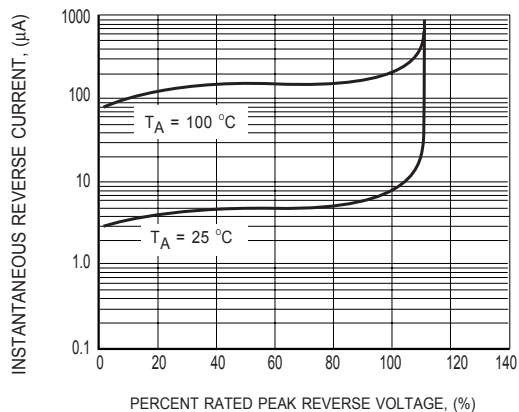
NOTES : 1. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

2009-11  
REV:O

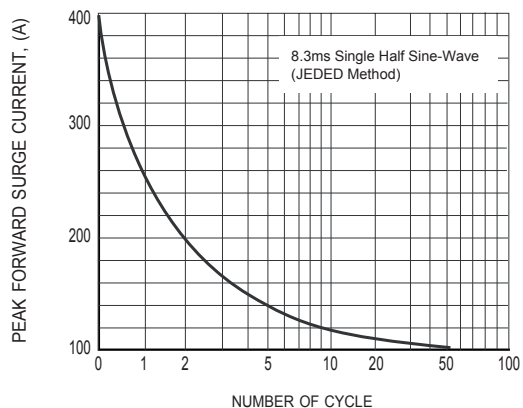
## RATING AND CHARACTERISTICS CURVES ( SPA2505G )



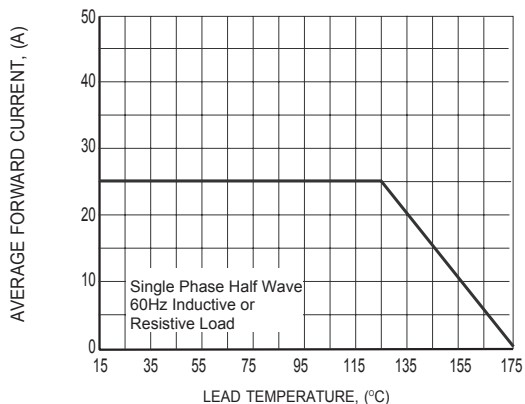
**FIG.1 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.2 TYPICAL REVERSE CHARACTERISTICS**



**FIG.3 SURGE FORWARD CURRENT CAPABILITY**



**FIG.4 TYPICAL FORWARD CURRENT DERATING CURVE**

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