



GLASS PASSIVATED SILICON RECTIFIER

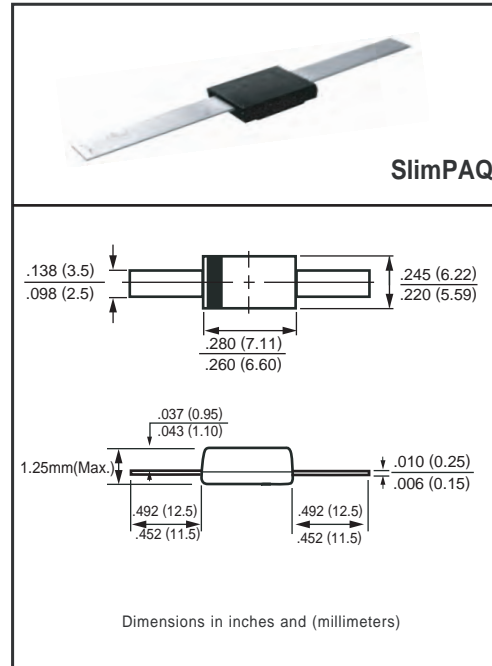
VOLTAGE 200 Volts CURRENT 12 Ampere

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	SPAC1203F	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	200	Volts
Maximum RMS Voltage	V _{RMS}	140	Volts
Maximum DC Blocking Voltage	V _{DC}	200	Volts
Maximum Average Forward Rectified Current at T _C = 125 °C	I _O	12	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	125	Amps
Typical Current Square Time	I ² T	64.8	A ² S
Typical Thermal Resistance (Note 1)	R _{θJC}	4.1	°C/W
	R _{θJA}	8.3	
	R _{θJL}	1.6	
Typical Junction Capacitance (Note 2)	C _J	40	pF
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to + 175	°C

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

CHARACTERISTICS	SYMBOL	SPAC1203F	UNITS
Maximum Instantaneous Forward Voltage at 12 A DC	V _F	1.1	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T _A = 25°C	10	μAmps
	@T _A = 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 (SPAC1203F)

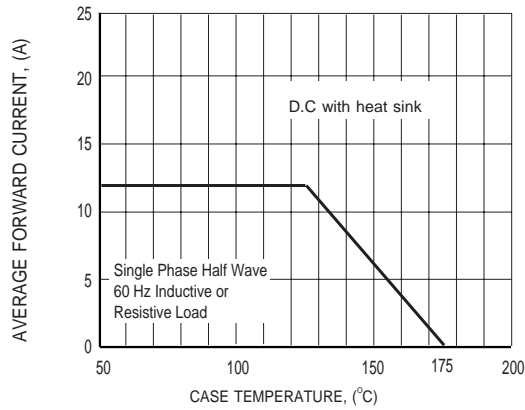


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

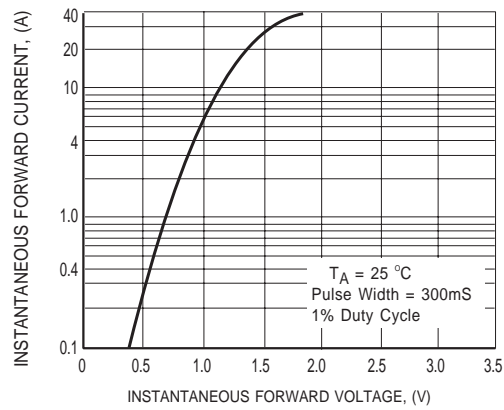


FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

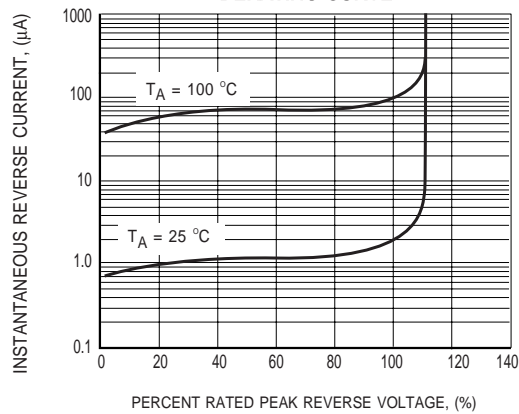


FIG.3 TYPICAL REVERSE CHARACTERISTICS

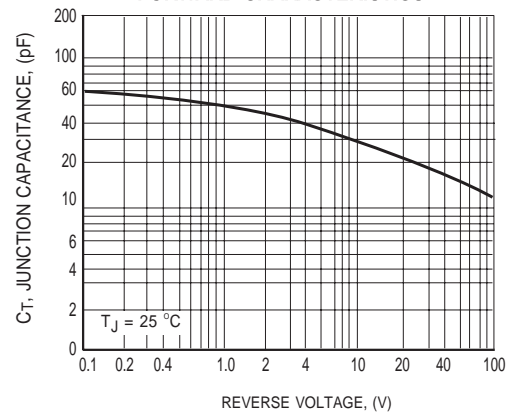


FIG.4 TYPICAL JUNCTION CAPACITANCE

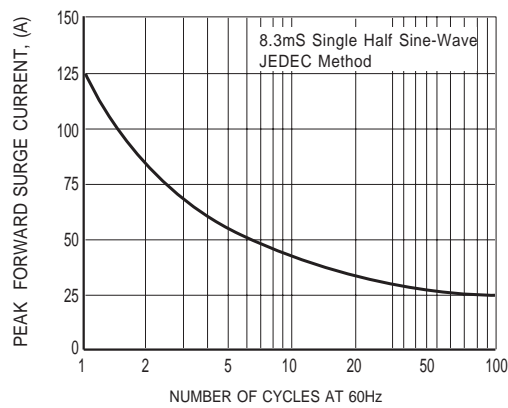


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

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