

SURFACE MOUNT SILICON RECTIFIER

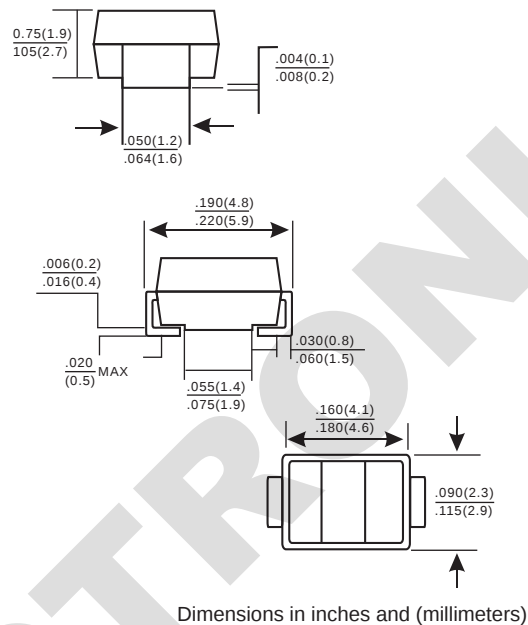
FEATURES

- Glass passivated chip junction.
- Lead for surface mounted applications
- Low leakage
- High forward surge current capability.
- High temperature soldering guaranteed:
260°C/10 seconds at terminals

MECHANICAL DATA

- Case:** Transfer molded plastic
- Epoxy:** ULA4V-0 rate flame retardent.
- Polarity:** Color band denotes cathode end
- Lead:** Plated axial lead, solderable per MIL-STD-202E method 208C
- Weight:** 0.002 ounce, 0.057 gram

SMA (DO-214AC)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified.
- Single phase, half wave, 60Hz, resistive or inductive load.
- For capacitive load derate current by 20%.

		SYMBOLS	S1A	S1B	S1D	S1G	S1J	S1K	S1M	UNITS
Maximum Repetitive 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 _(AV)	1.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)		I _{FSM}	30							Amps
Maximum Instantaneous Forward Voltage at Drep 1.0A		V _F	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage	T _A =25°C	I _R	1.0							μA
	T _A =125°C		50							
Maximum Full Load Reverse Current,full cycle average at T _A =75°C		R _{θJA}	30							μA
Typical Junction Capacitance(NOTE1)		C _J	15							pF
Typical Thermal Resistance(NOTE2)		R _{θJA}	75							°C/W
Operating and Storage Temperature Range		T _J , T _{STG}	-65 to +175							°C

NOTES:

- Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
- 6.0X6.0mm² copper pads to each terminal.

Typical Characteristics

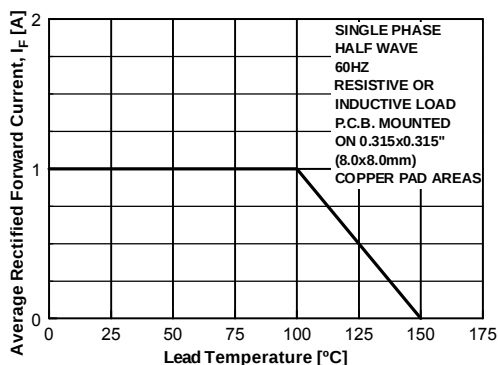


Figure 1. Forward Current Derating Curve

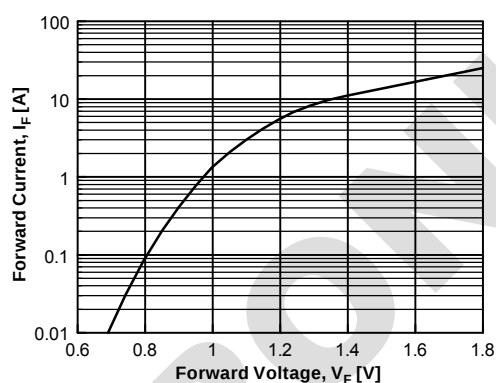


Figure 2. Forward Voltage Characteristics

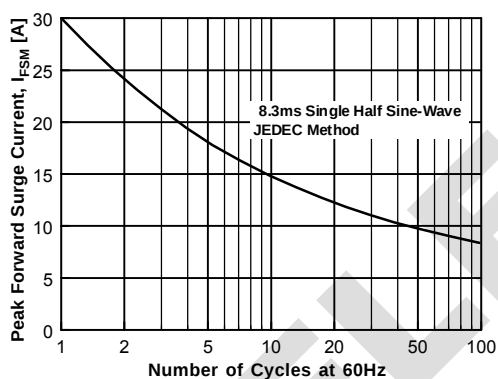


Figure 3. Non-Repetitive Surge Current

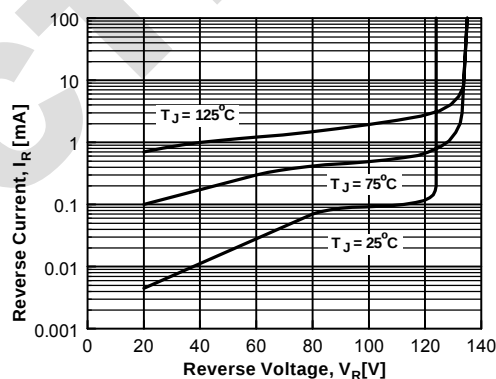


Figure 4. Reverse Current vs Reverse Voltage

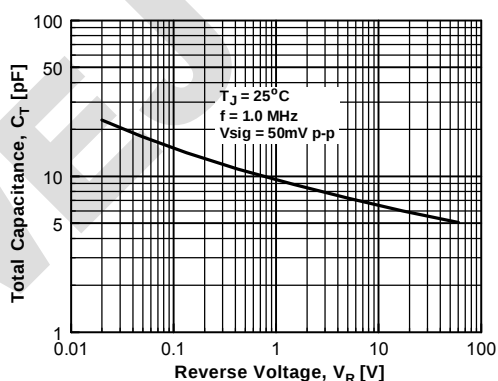


Figure 5. Total Capacitance

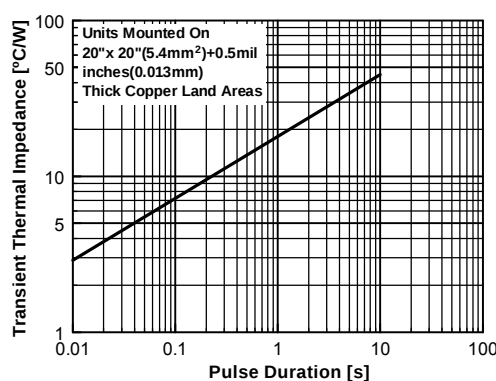


Figure 6. Thermal Impedance Characteristics