



**SILICON RECTIFIER**

**VOLAGE 200 Volts CURRENT 15 Ampere**

**FEATURES**

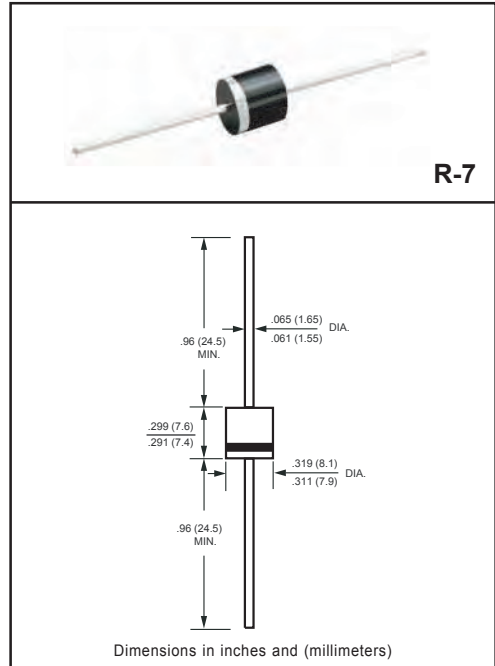
- \* Low cost
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* High surge current capability
- \* Ideal for solar panel PV application such as By-Pass diode

**MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: Device has UL flammability classification 94V-O
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 2.08 grams

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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



Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	SPA1503-T-S-A01	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	200	Volts
Maximum RMS Voltage	VRMS	140	Volts
Maximum DC Blocking Voltage	VDC	200	Volts
Maximum DC Forward Current @TL=125°C(Note 2)	IO	15	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	400	Amps
Typical Current Squared Time	I <sup>2</sup> T	663.7	A <sup>2</sup> S
Typical Junction Capacitance (Note)	CJ	125	pF
Typical Thermal Resistance	RθJC	2.9	°C/W
	RθJL	1.4	
Operating Temperature Range	TJ	175(TJ≤200°C in Bypass Mode)	°C
Storage Temperature Range	TSTG	-55 to +175	°C

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

CHARACTERISTICS	SYMBOL	SPA1503-T-S-A01	UNITS
Maximum Instantaneous Forward Voltage at 15A DC	VF	1.0	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	IR	@TA = 25°C	10
		@TA = 100°C	100
Maximum Full Load Reverse Current Average Full Cycle .375" (9.5mm) lead length at TL = 75°C		50	uAmps

- NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts  
 2. Heat-sink mounted 10mm max from body  
 3. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

# RATING AND CHARACTERISTIC CURVES ( SPA1503-T-S-A01 )

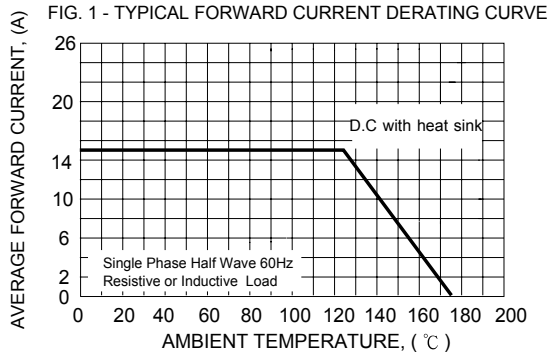


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

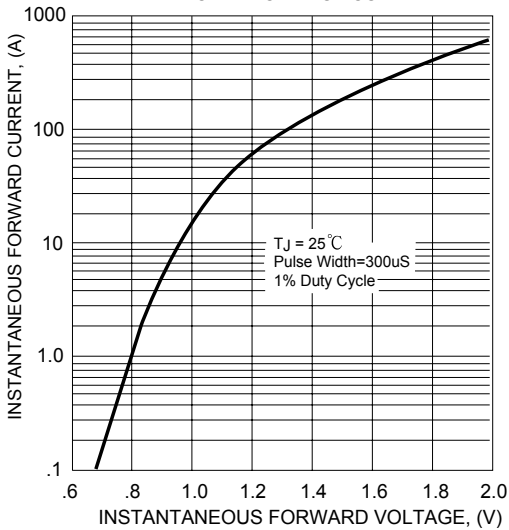


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

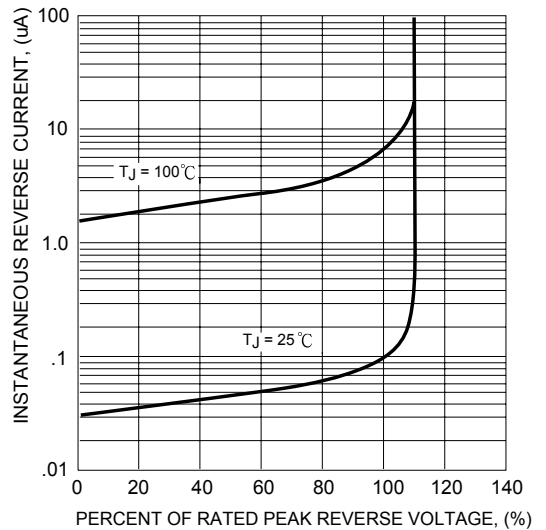


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

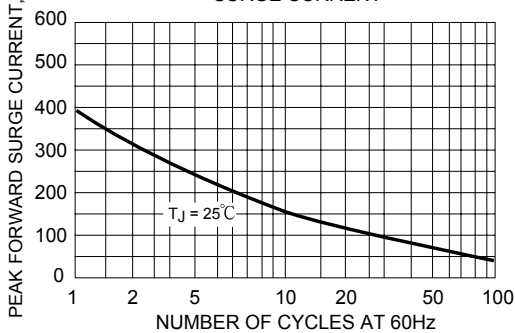
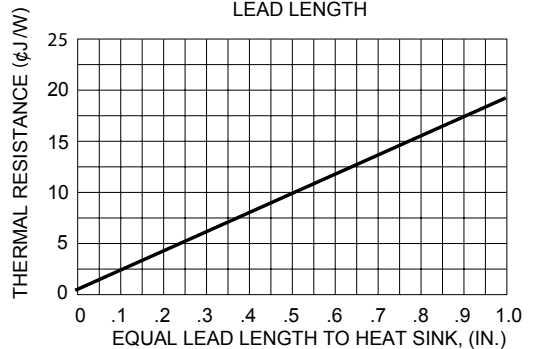
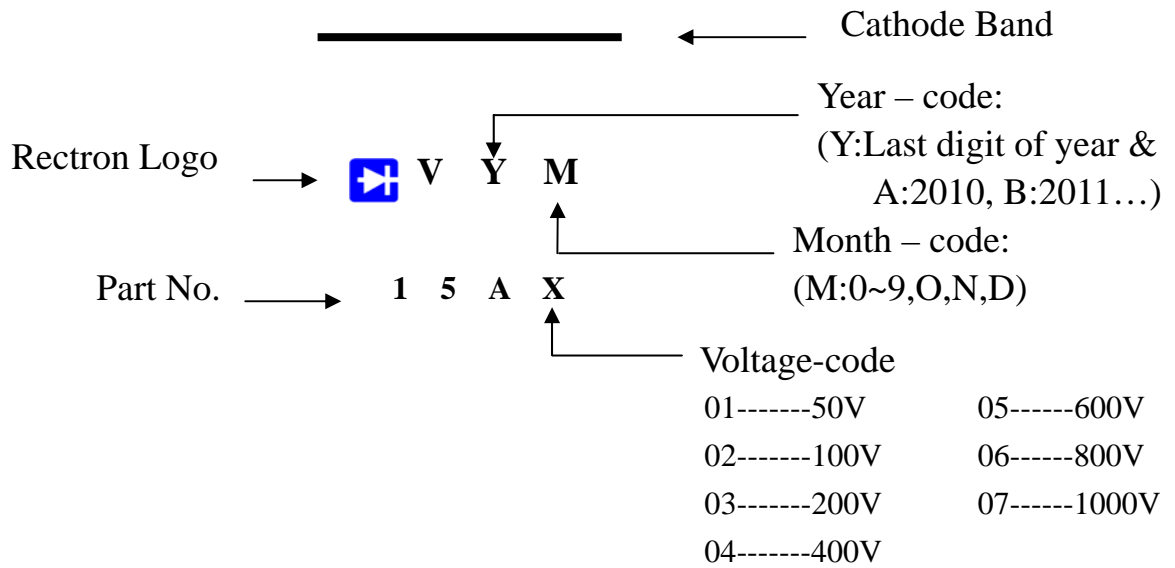


FIG. 5 - TYPICAL THERMAL RESISTANCE VS LEAD LENGTH



## Marking Description



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