Schottky Barrier Rectifier

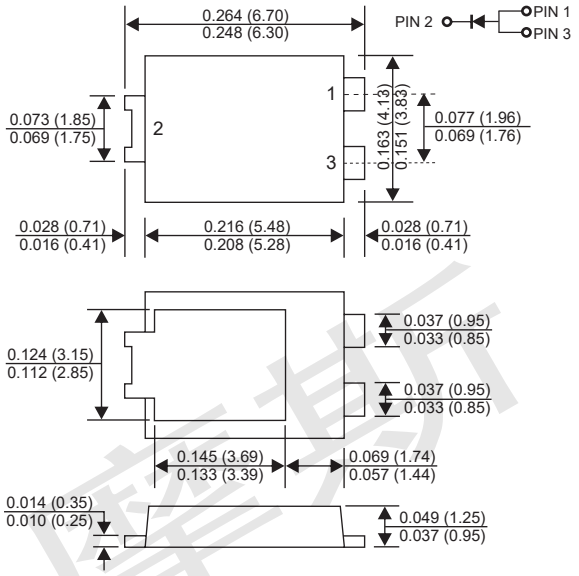
STR15U40SP THRU STR15U200SP 40 to 200 V 15.0A

RoHS COMPLIANT

Features And Mechanical Data

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for over voltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering:260℃ MAX at 10 seconds, per JESD 22-B106 or MIL-STD-750,method 2026
- Case: JEDEC TO-277 molded plastic body

TO-277



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

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

	Symbols	STR 15L40 SP	STR 15U45 SP	STR 15U60 SP	STR 15U80 SP	STR 15U100 SP	STR 15U120 SP	STR 15U150 SP	STR 15U200 SP	Units
Device Marking		15U40SP S15U40	15U45SP S15U45	15U60SP S15U60	15U80SP S15U80	15U100SP S15U100	15U120SP S15U120	15U150SP S15U150	15U200SP S15U200	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	60	80	100	120	150	200	Volts
Maximum RMS Voltage	V_{RMS}	28	31.5	42	56	70	84	105	140	Volts
Maximum DC Blocking Voltage	V_{DC}	40	45	60	80	100	120	150	200	Volts
Maximum Average Forward Rectified Current. Lead Length @Ta(Fig 1)	$I_{(AV)}$	15.0								Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method) (Rating of per diode)	I_{FSM}	180								Amp
Maximum instantaneous forward voltage at $I_{(AV)}$	V_F	0.42		0.48	0.72			0.78	0.84	Volts
Maximum DC reverse current at rated DC blocking voltage per T_j=25℃	I_R	0.2			0.1					mA
T_j=100℃		50			10					
Typical Thermal Resistance Note (1)	$R_{\Theta JA}$	75								℃/W
Note (2)		33								
Junction Temperature	T_J	-65 to +150								℃
Storage Temperature Range	T_{STG}	-65 to +150								℃

Note 1. FR-4 PCB, 2 oz Copper. Minimum recommended pad layout

Note 2. Polymide PCB, 2 oz Copper. Cathode pad dimensions 18.8x14.4mm , Anode pad dimensions- (5.6x14.4mm)

RATINGS AND CHARACTERISTIV CURVES

RoHS COMPLIANT

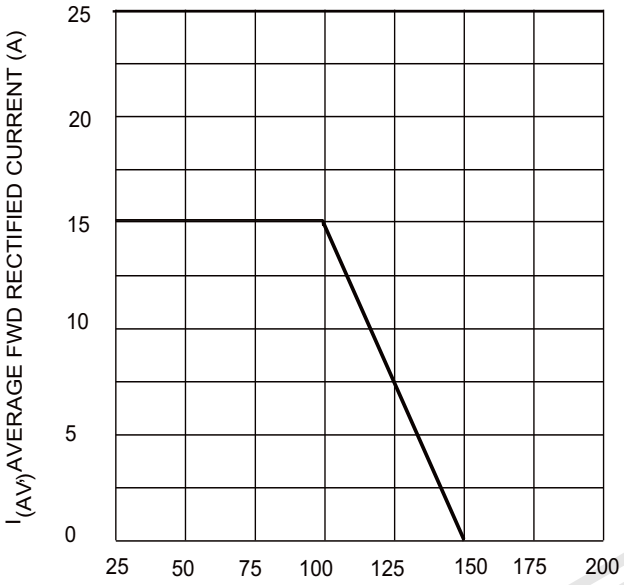


Fig. 1 Forward Derating Curve

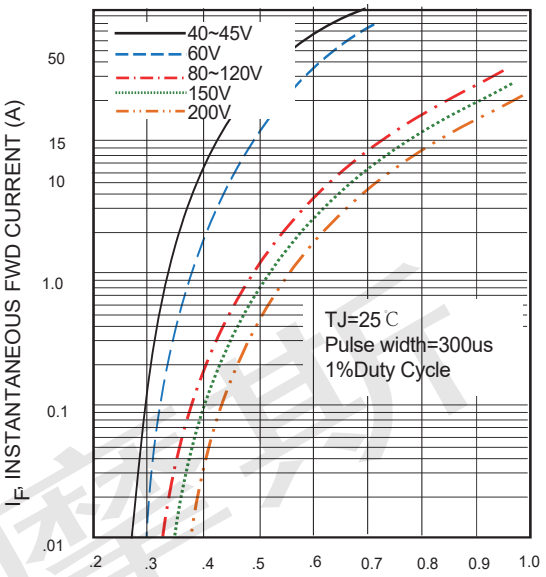


Fig. 2 Typical Forward Characteristics

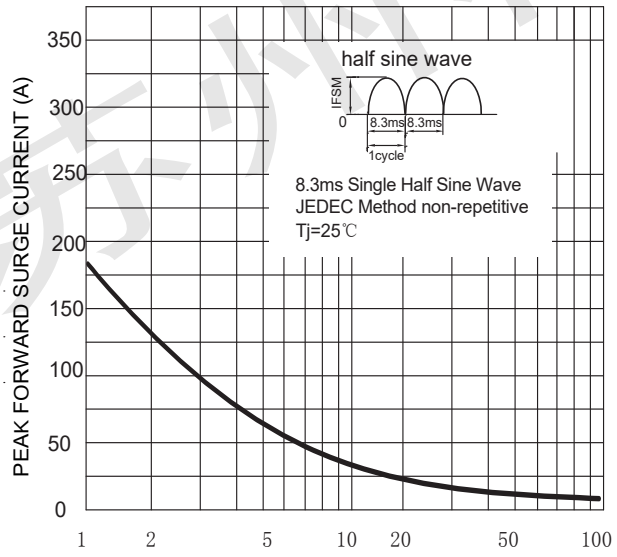


Fig. 3 Peak Forward Surge Current

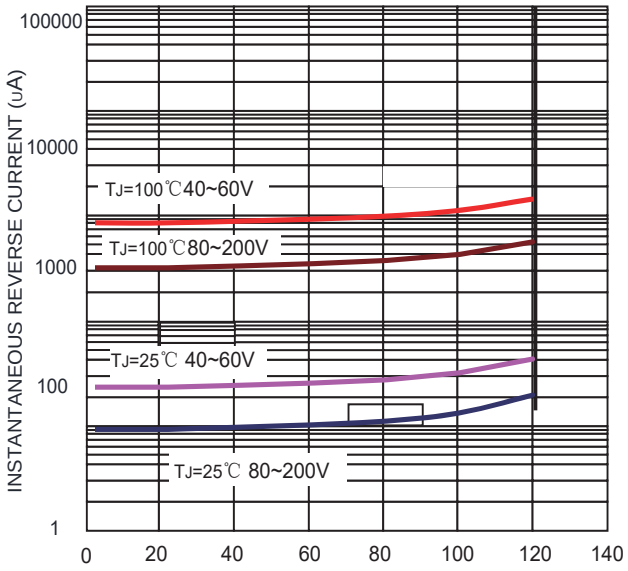


Fig.4-Typical Forward Characteristics

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