

**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE 100 to 200 Volts CURRENT 5.0 Amperes**

**FEATURES**

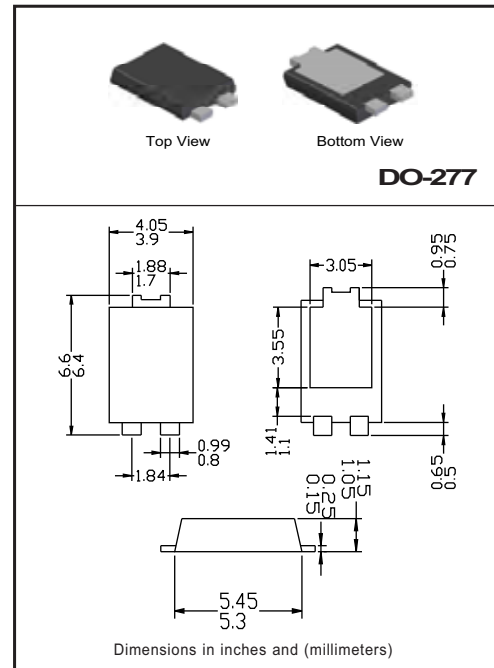
- \* Low Profile Design for Smart Phone Charger
- \* Ideal for SMT Mounting
- \* High Forward Surge Capability
- \* Low Forward Voltage Drop
- \* Excellent High Temperature Stability
- \* P/N suffix V means AEC-Q 101 qualified, e.g:SR5100PV

**MECHANICAL DATA**

- \* Epoxy: Device has UL flammability classification 94V-0
- \* Weight: 0.086 grams (approximate)
- \* Halogen-free

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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



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

RATINGS	SYMBOL	SR5100P	SR5150P	SR5200P	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	100	150	200	Volts
Maximum RMS Voltage	$V_{RMS}$	70	105	140	Volts
Maximum DC Blocking Voltage	$V_{DC}$	100	150	200	Volts
Max Avg Forward Rectify Current at Ambient Temp needs To be corrected to Lead Temperature,TL	$I_O$		5		Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$		150		Amps
Typical Current Square Time	$I^2T$		93.4		A <sup>2</sup> S
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$		55		°C/W
	$R_{\theta JL}$		17		
Operating Temperature Range	$T_J$		-55 to + 175		°C
Storage Temperature Range	$T_{STG}$		-55 to + 175		°C

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

CHARACTERISTICS	SYMBOL	SR5100P	SR5150P	SR5200P	UNITS
Maximum Instantaneous Forward Voltage at 5.0A DC	$V_F$		.88		Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@ $T_A = 25^\circ\text{C}$		5.0		uA
	@ $T_A = 150^\circ\text{C}$		2.0		mA

NOTES : 1. Thermal Resistance : Mounted on PCB  
2. "ROHS compliant"

2020-04  
REV: D

## RATING AND CHARACTERISTICS CURVES ( SR5100P THRU SR5200P )

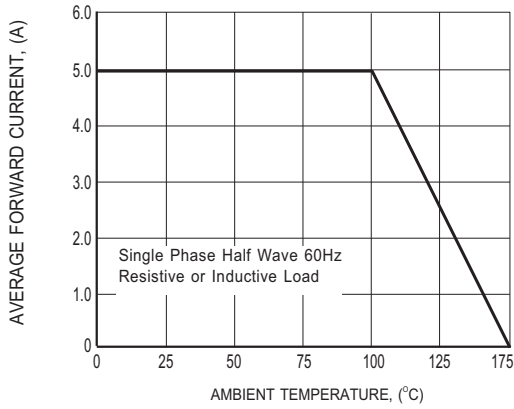


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

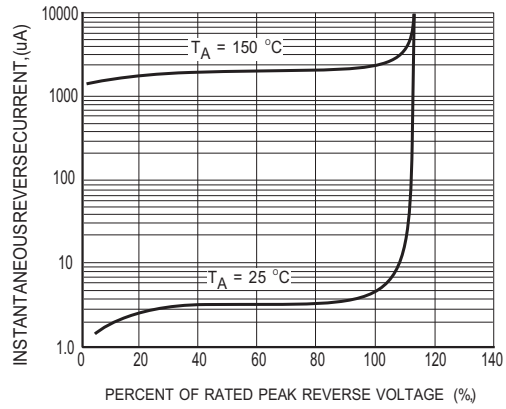


FIG.2 MAXIMUM REVERSE CHARACTERISTICS

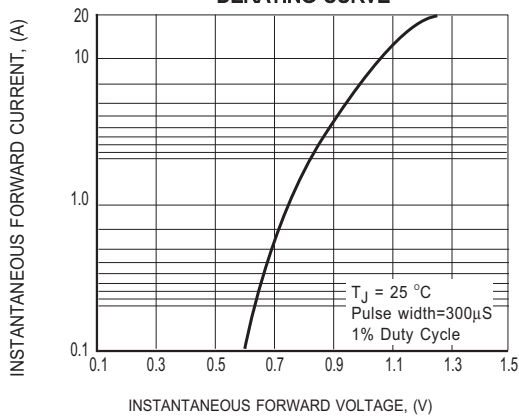


FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

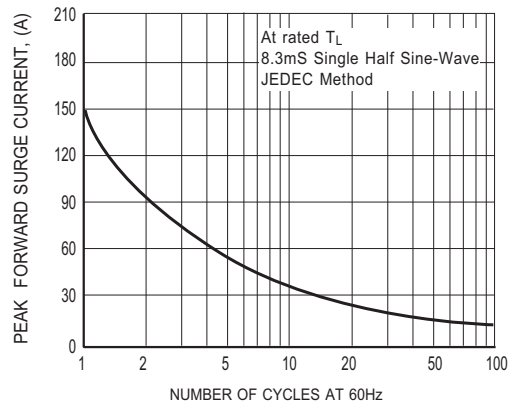
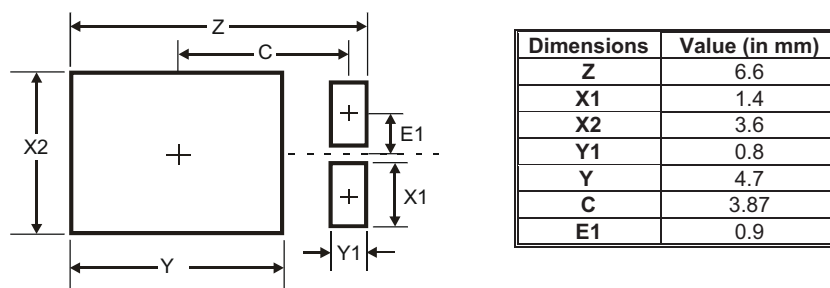


FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

## Recommendation of Mounting Pad Layout



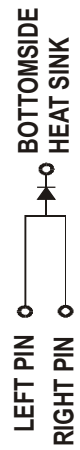
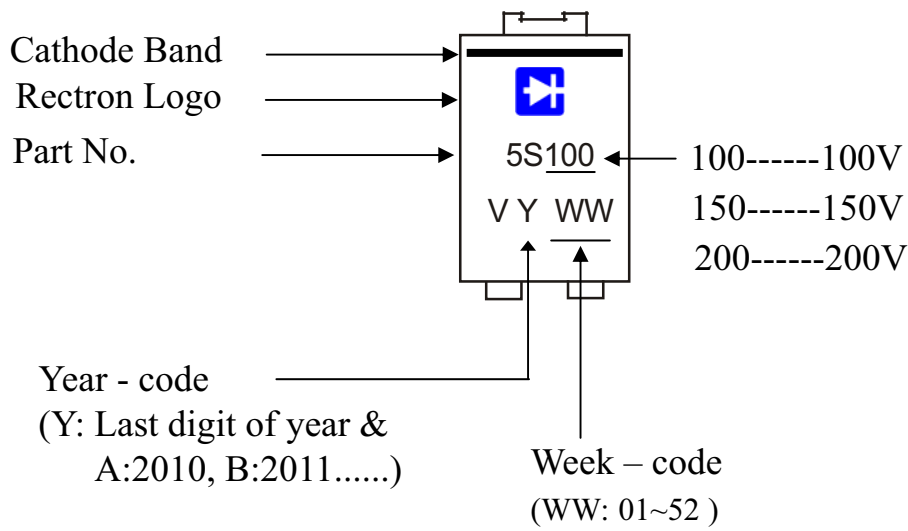
Dimensions in millimeters

## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DO-277	-T/W	5,000	10,000	---	---	330	360*355*360	80,000	15.29

# Marking Description



Note: Pins Left & Right must be electrically connected at the printed circuit board.

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