



## SX32 thru SX310

### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

SMA/DO-214AC

Unit: inch (mm)

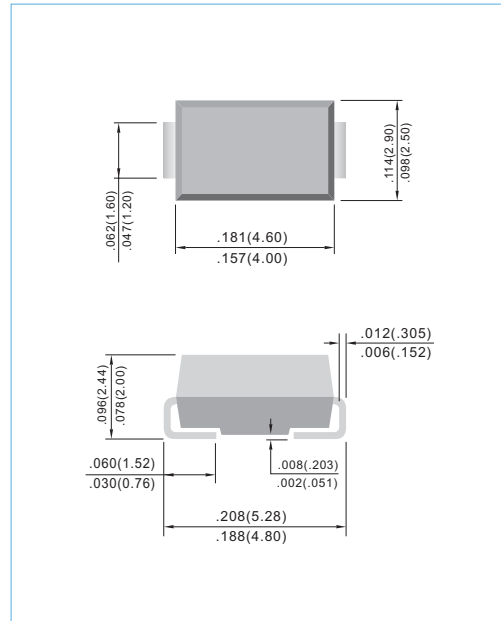
**VOLTAGE** 20 to 100 Volts **CURRENT** 3.0 Amperes

#### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Lead free in comply with EU RoHS 2011/65/EU directives
- Green molding compound as per IEC61249 Std. . (Halogen Free)

#### MECHANICAL DATA

Case: JEDEC DO-214AC molded plastic  
 Terminals: Solder plated, solderable per MIL-STD-750, Method 2026  
 Polarity: Color band denotes positive end (cathode)  
 Standard packaging: 12mm tape (EIA-481)  
 Weight: 0.002 ounce, 0.064 gram



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	SX32	SX33	SX34	SX35	SX36	SX38	SX39	SX310	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	90	100	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	64	70	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	90	100	V
Maximum Average Forward Current at $T_L=75^\circ\text{C}$	$I_{F(AV)}$	3.0								A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	80								A
Maximum Forward Voltage at 3.0A ( Note 1)	$V_F$	0.5			0.68		0.85			V
Maximum DC Reverse Current $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	$I_R$						0.5 20			mA
Maximum Thermal Resistance ( Note 2)	$R_{\theta JL}$ $R_{\theta JA}$						20 75			$^\circ\text{C} / \text{W}$
Operating Junction Temperature Range	$T_J$						-55 TO +125			$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$						-55 TO +150			$^\circ\text{C}$

#### NOTES:

1. Pulse Test with  $PW = 300\mu\text{sec}$ , 1% Duty Cycle.
2. Mounted on P.C. Board with  $8.0\text{mm}^2$  (.013mm thick) copper pad areas.



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## RATING AND CHARACTERISTIC CURVES

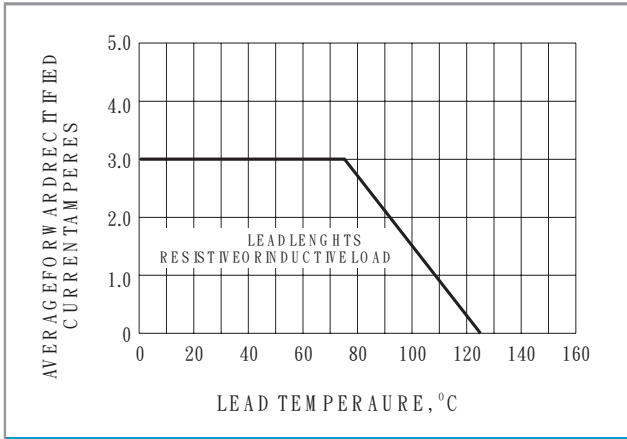


Fig. 1 FORWARD CURRENT DERATING CURVE

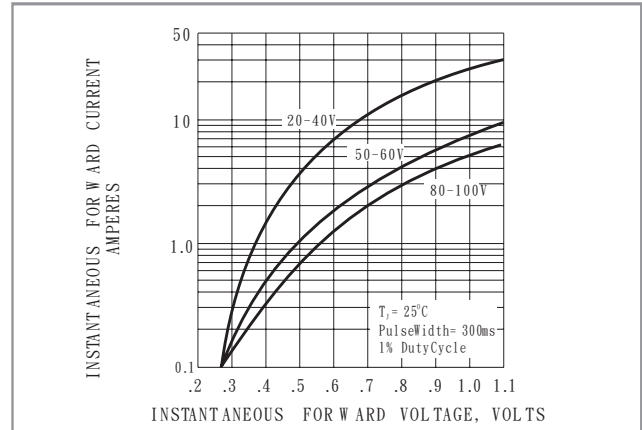


Fig. 2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

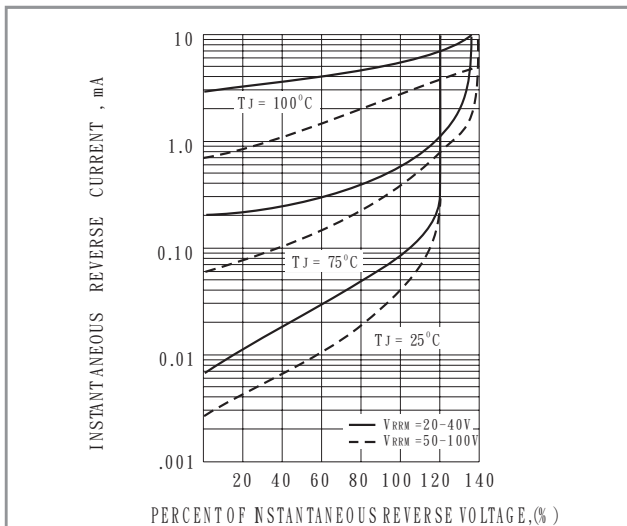


Fig. 3 TYPICAL REVERSE CHARACTERISTIC

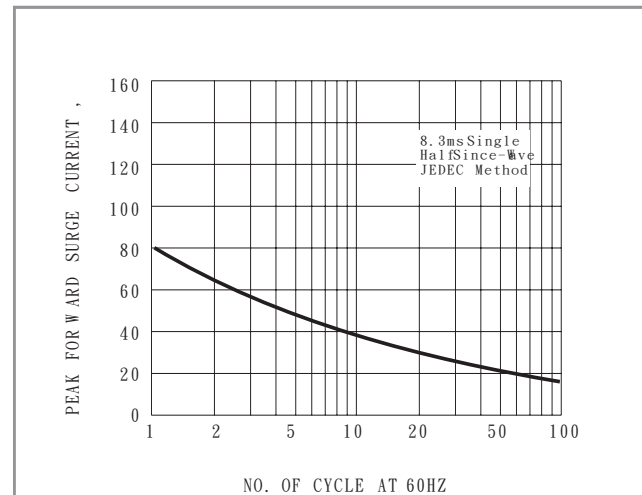


Fig. 4 MAXIMUM NON-REPETITIVE SURGE CURRENT

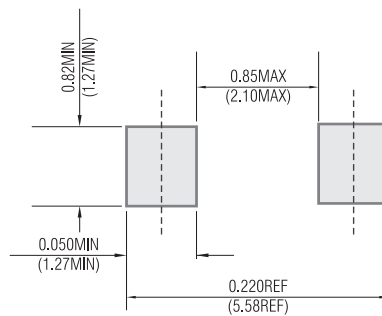


## SX32 thru SX310

### MOUNTING PAD LAYOUT

SMA/DO-214AC

Unit: inch ( mm )



### ORDER INFORMATION

- Packing information
  - T/R - 7.5K per 13" plastic Reel
  - T/R - 1.8Kper 7" plastic Reel



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