



# DATA SHEET

## SX32~SX39

### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

**VOLTAGE- 20 to 90 Volts CURRENT- 3.0 Amperes**

#### FEATURES

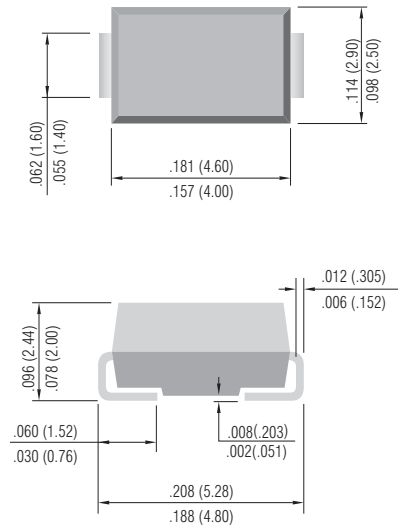
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier. majority carrier conduction
- Low power loss,high efficiency
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed: 260°C /10 seconds at terminals

#### 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

SMA / DO-214AC

Unit: inch ( mm )



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

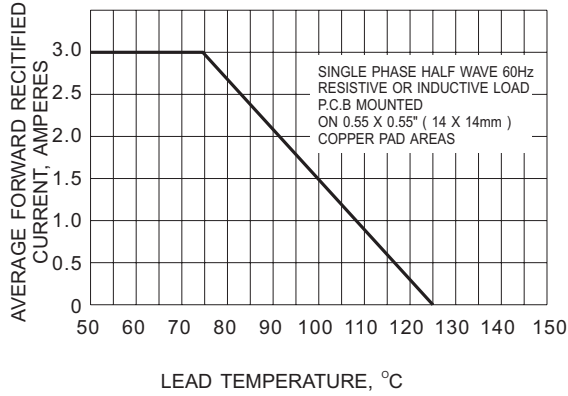
	SYMBOLS	SX32	SX33	SX34	SX35	SX36	SX38	SX39	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20.0	30.0	40.0	50.0	60.0	80.0	90.0	V
Maximum RMS Voltage	$V_{RMS}$	14.0	21.0	28.0	35.0	42.0	56.0	71.0	V
Maximum DC Blocking Voltage	$V_{DC}$	20.0	30.0	40.0	50.0	60.0	80.0	90.0	V
Maximum Average Forward Rectified Current at $T_L$ (See figure 1)	$I(AV)$	3.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	80.0							A
Maximum Instantaneous Forward Voltage at 3.0A (Note 1)	$V_F$	0.50			0.75		0.85		V
Maximum DC Reverse Current (Note 1) $T_a=25^{\circ}C$	$I_R$	0.5							mA
at Rated DC Blocking Voltage $T_a=100^{\circ}C$		20.0							mA
Maximum Thermal Resistance(Note 2)	$R_{\theta JL}$	17.0							$^{\circ}C/W$
	$R_{\theta JA}$	55.0							
Operating and Storage Temperature Range $T_J$	$T_J$	-50 to +150							$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-50 to +150							$^{\circ}C$

**NOTES:**

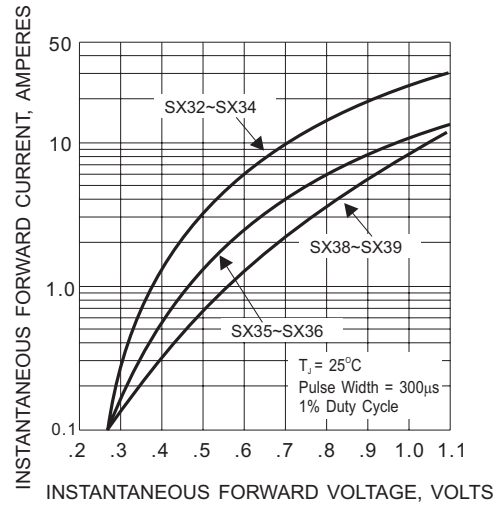
- A.Pulse Test with PW =300μsec, 2% Duty Cycle.
- B.Mounted on P.C. Board with 14mm<sup>2</sup> (.013mm thick) copper pad areas.



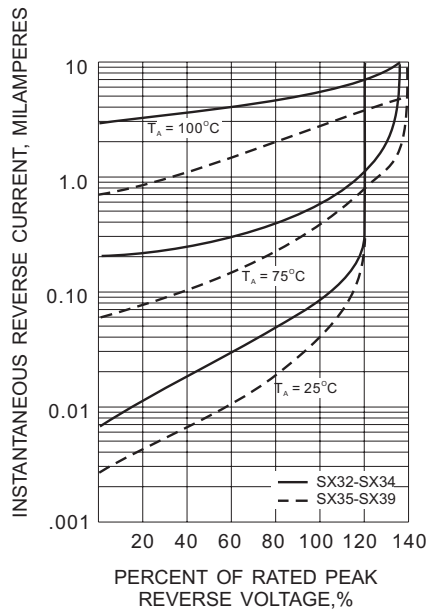
### RATING AND CHARACTERISTIC CURVES



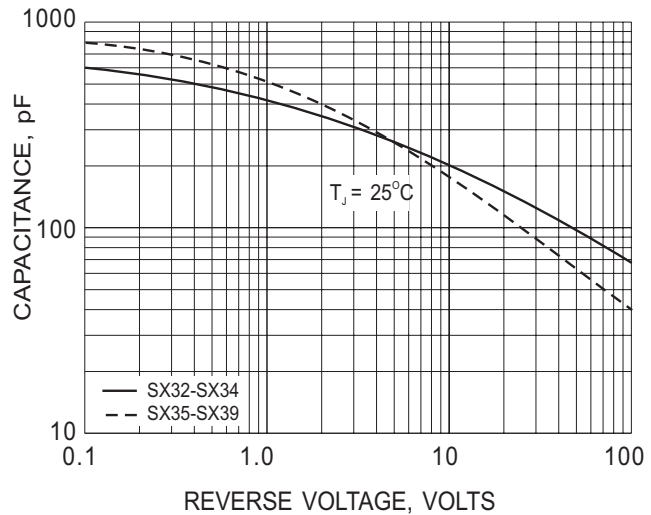
**Fig.1- FORWARD CURRENT DERATING CURVE**



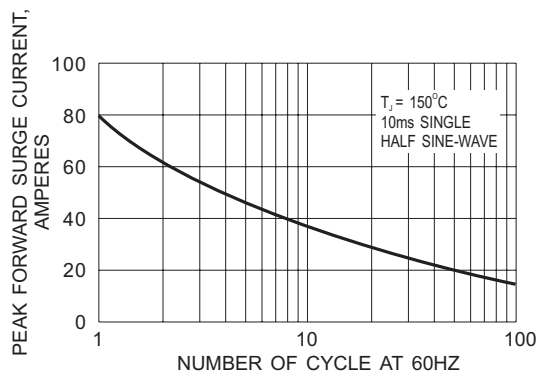
**Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**



**Fig.3- TYPICAL REVERSE CHARACTERISTIC**



**Fig.4- TYPICAL JUNCTION CAPACITANCE**



**Fig.5- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**