SX3X SERIES

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

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SX32 THRU S3A0

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER



REVERSE VOLTAGE: 20 to 100 VOLTS FORWARD CURRENT: 3.0 AMPERE

FEATURES

- Plastic package has Underwriters Laboratory
 Flammability Classification 94V-O
- · For surface mounted applications
- · High current capacity
- · Built-in strain relief
- · Low profile package
- · Metal to silicon rectifier. majority carrier conduction
- · High surge capacity
- · Low power loss, high efficiency
- · For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- · High temperature soldering: 250°C /10 seconds at terminals

MECHANICAL DATA

Case: Molded plastic, DO-214AC(SMA)

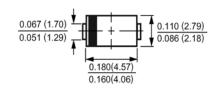
Terminals: Axial leads, solderable per MIL-STD-750,

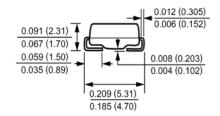
method 2026 guaranteed

Polarity: Color band denotes cathode end Packaging: 12mm tape per EIA STD RS-481

Weight: 0.002 ounce, 0.064 gram

DO-214AC(SMA)





Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at $25\,^\circ\!\!\!\mathrm{C}$ ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	SX32	SX33	SX34	SX35	SX36	SX38	SX39	S3A0	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	90	100	Volts
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	63	70	Volts
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	80	90	100	Volts
$\label{eq:maximum} \begin{aligned} & \text{Maximum Average Forward Rectified Current} \\ & \text{at } T_L \ (\text{See Fig. 1}) \end{aligned}$	I _(AV)	3.0								Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	80								Amp
Maximum Forward Voltage at 3.0A (Note 1)	$V_{\rm F}$	0.50			0.75		0.85			Volts
Maximum Reverse Current at T_A =25 $^{\circ}$ C at Rated DC Blocking Voltage T_A =100 $^{\circ}$ C	I_R	0.5 20								mAmp
Typical Thermal Resistance (Note 2)	$R_{ heta JA} \ R_{ heta JL}$	55 17								°C/W
Operating Junction Temperature Range	T_{J}	-55 to +125								°C
Storage Temperature Range	Tstg	-55 to +150								°C

NOTES:

- 1- Pulse test: 300µs pulse width, 1% duty cycle
- 2- P.C.B. mounted with 0.55 x 0.55" (14 x 14mm) Copper Pad Areas



RATINGS AND CHARACTERISTIC CURVES

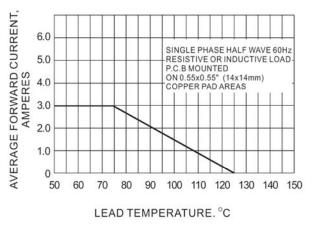


Fig.1- FORWARD CURRENT DERATING CURVE

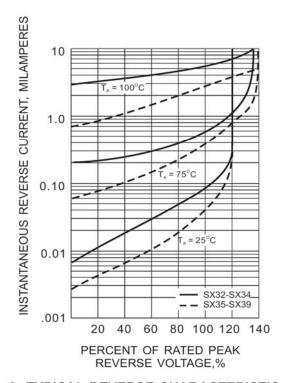


Fig.3- TYPICAL REVERSE CHARACTERISTIC

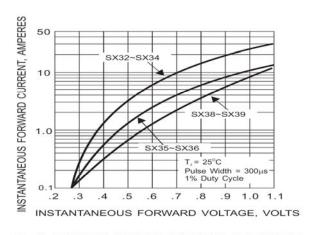


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

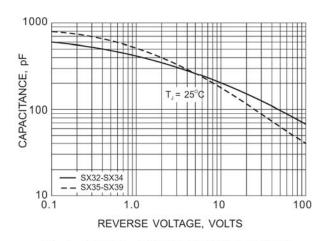


Fig.4- TYPICAL JUNCTION CAPACITANCE

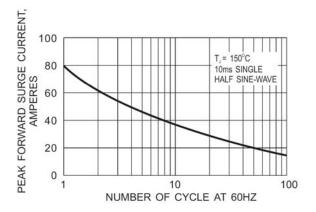


Fig.5- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT