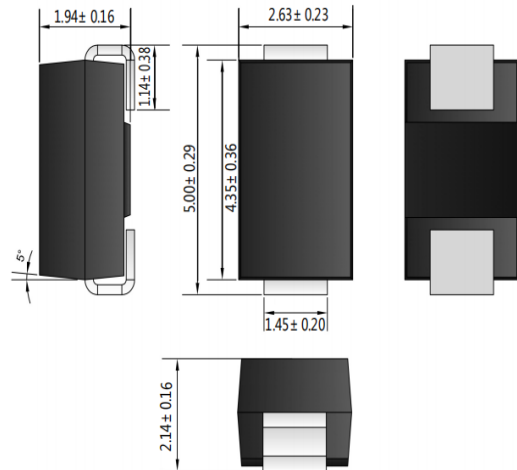


### Features

- Low Forward Voltage
- Epitaxial Construction with Oxide Passivation
- Guard Ring for Transient and ESD Protection
- Surge Overload Rating to 80A Peak
- Low Power Loss
- Fast Switching
- Ideally Suited for Use in High Frequency SMPS, Inverters and As Free Wheeling Diodes

### SMA /DO-214AC



### Mechanical Data

- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version**

### Maximum Ratings @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	SX32	SX33	SX34	SX35	SX36	SX38	SX39	SX310	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>									
Working Peak Reverse Voltage	V <sub>RWM</sub>	20	30	40	50	60	80	90	100	V
DC Blocking Voltage	V <sub>R</sub>									
RMS Reverse Voltage	V <sub>R(RMS)</sub>	14	21	28	35	42	56	63	70	V
Average Rectified Output Current (Note 1)	I <sub>O</sub>	3.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	80								A
Forward Voltage @I <sub>F</sub> = 3.0A	V <sub>FM</sub>	0.50			0.75		0.85			V
Peak Reverse Current @T <sub>J</sub> = 25°C	I <sub>RM</sub>	0.5								mA
At Rated DC Blocking Voltage @T <sub>J</sub> = 100°C		20								
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	250			180		140			pF
Thermal Resistance, Junction to Ambient (Note 1)	R <sub>JA</sub>	80								°C/W
Thermal Resistance, Junction to Lead (Note 1)	R <sub>JL</sub>	22								
Operating Temperature Range	T <sub>J</sub>	-55 to +125				-55 to +150				°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150								°C

Note: 1. Mounted on FR-4 PCB with 5.0 x 5.0mm copper pads.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

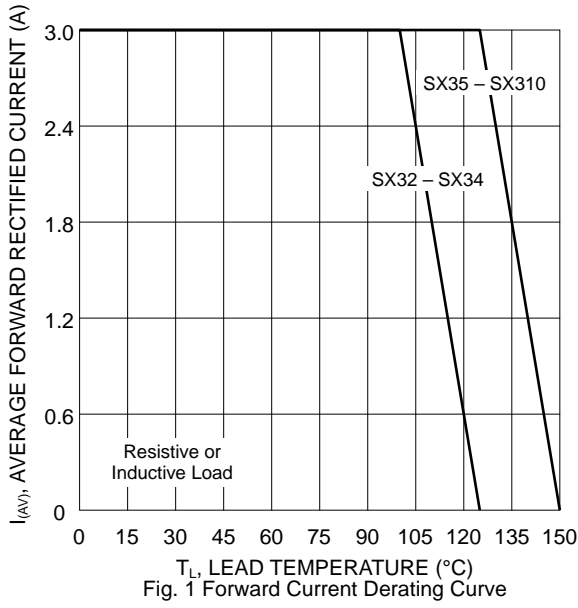


Fig. 1 Forward Current Derating Curve

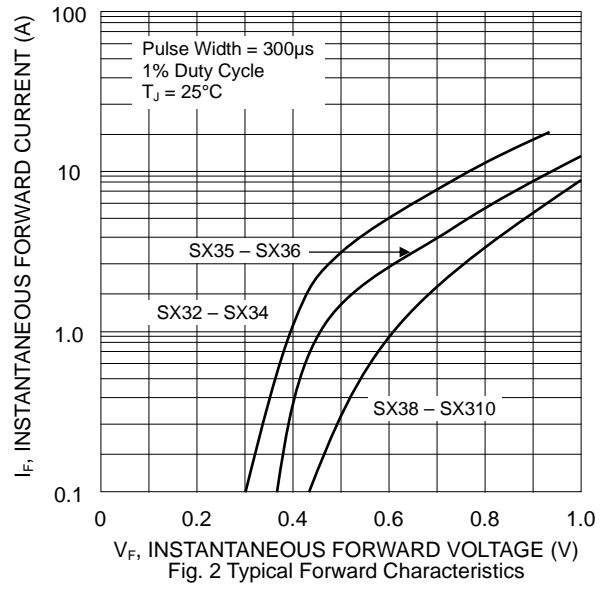


Fig. 2 Typical Forward Characteristics

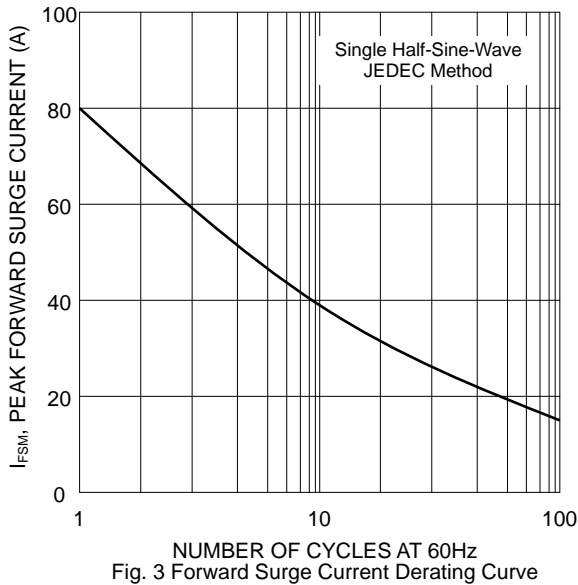


Fig. 3 Forward Surge Current Derating Curve

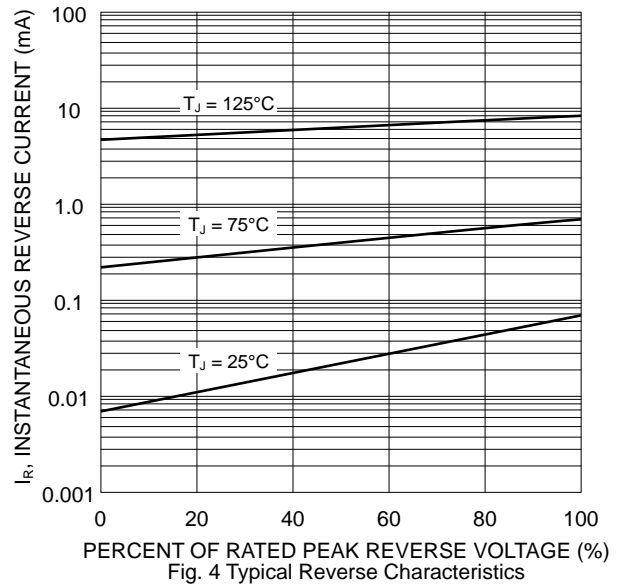


Fig. 4 Typical Reverse Characteristics

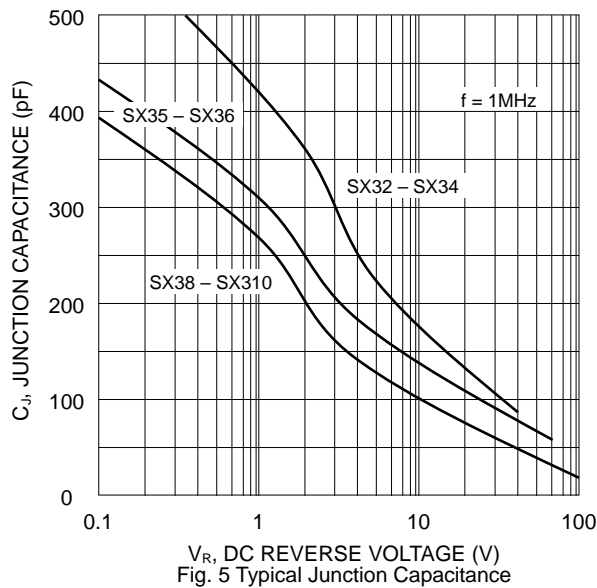
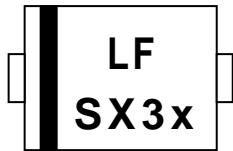


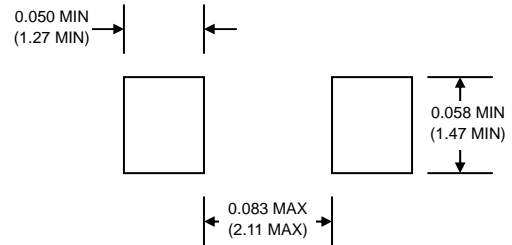
Fig. 5 Typical Junction Capacitance

## MARKING INFORMATION



Cathode = Polarity Band  
 SX3x = Device Number  
 x = 2, 3, 4, 5, 6, 8, 9 or 10

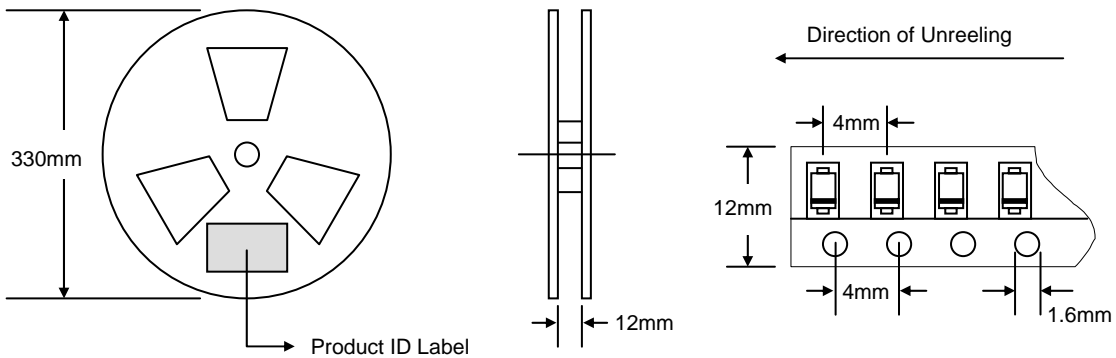
## RECOMMENDED FOOTPRINT



inches(mm)

## PACKAGING INFORMATION

### TAPE & REEL



Reel Diameter (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
330	5,000	340 x 337 x 45	10,000	370 x 370 x 420	80,000	14.0