

# SX33L

## LOW VF SCHOTTKY BARRIER DIODE

<b>VOLTAGE</b>	<b>30 Volt</b>	<b>CURRENT</b>	<b>3 Ampere</b>
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**SMA / DO-214AC** Unit : inch(mm)

### FEATURES

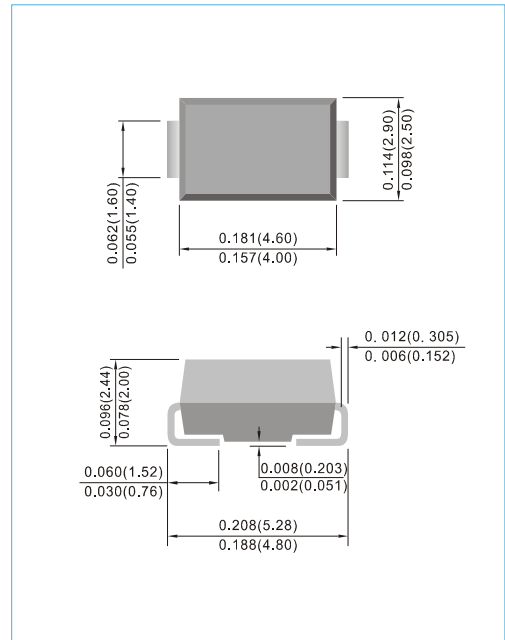
- Low forward voltage drop, low reverse current
- High Efficiency
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### APPLICATIONS

- Low voltage high frequency inverters
- DC/DC converters
- Polarity protection
- Freewheeling

### MECHANICAL DATA

- Case: JEDEC DO-214AC molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.0024 ounces, 0.0679 grams



### ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>= 25°C)

PARAMETER	SYMBOL	LIMITS	UNIT
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	30	V
Maximum Average Rectified Forward Current	I <sub>O</sub>	3	A
Peak Surge Forward Current	I <sub>FSM</sub>	75	A
Typical Thermal Resistance (Note 1)	R <sub>θJA</sub> R <sub>θJL</sub>	100 20	°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C

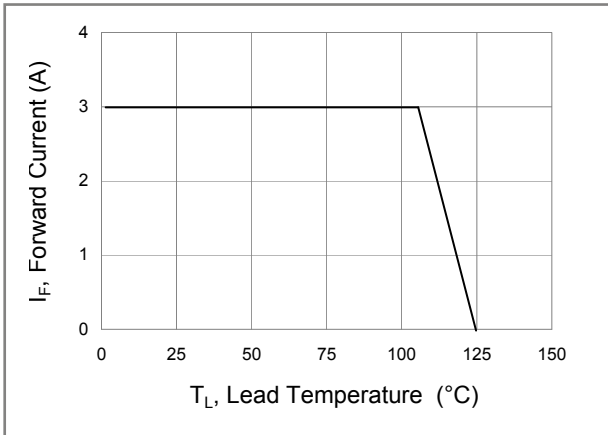
### ELECTRICAL CHARACTERISTICS (T<sub>A</sub>= 25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Instantaneous forward voltage (Note 2)	V <sub>F</sub>	I <sub>F</sub> =1A	-	0.29	0.31	V
		I <sub>F</sub> =2A	-	0.32	0.35	
		I <sub>F</sub> =3A	-	0.35	0.37	
		T <sub>J</sub> =25°C	-	-	-	V
I <sub>F</sub> =1A	-	0.17	-			
I <sub>F</sub> =2A	-	0.21	-			
Reverse current	I <sub>R</sub>	V <sub>R</sub> =21V	-	0.3	0.5	mA
		T <sub>J</sub> =25°C	-	90	-	
		V <sub>R</sub> =30V	-	0.8	1	mA
		T <sub>J</sub> =125°C	-	160	-	

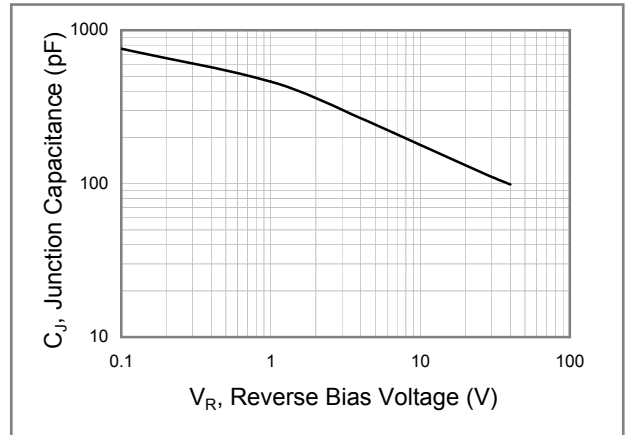
**NOTES:**

1. Mounted on P.C. Board with 25mm<sup>2</sup> copper pad areas.
2. Pulse Test with PW =300µsec, 1% Duty Cycle.

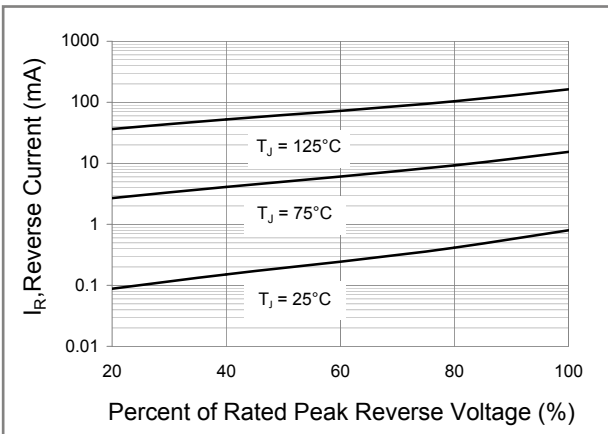
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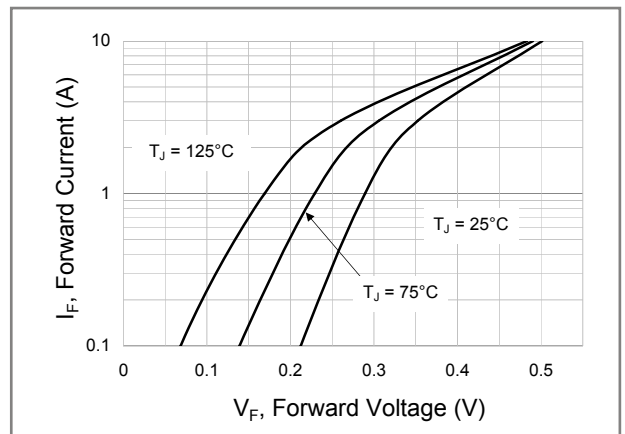
**Fig.1 Forward Current Derating Curve**



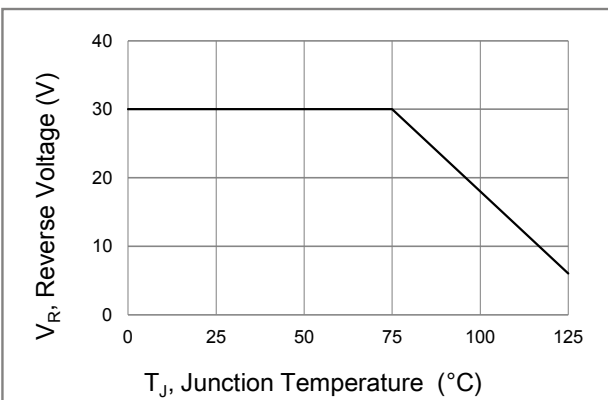
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**



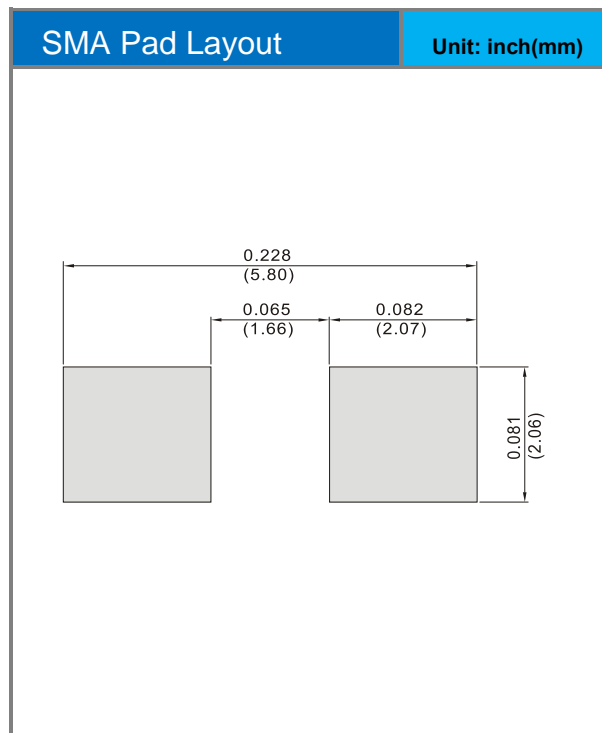
**Fig.5 Operating Temperature Derating Curve**

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## Product and Packing Information

Part No.	Package Type	Packing Type	Marking
SX33L	SMA	1.8K pcs / 7" reel	SX33L

## Mounting Pad Layout



## SX33L

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