



# SX33L

## LOW VF SCHOTTKY BARRIER DIODE

**VOLTAGE** 30 Volt **CURRENT** 3 Ampere

**SMA / DO-214AC** Unit : inch(mm)

### FEATURES

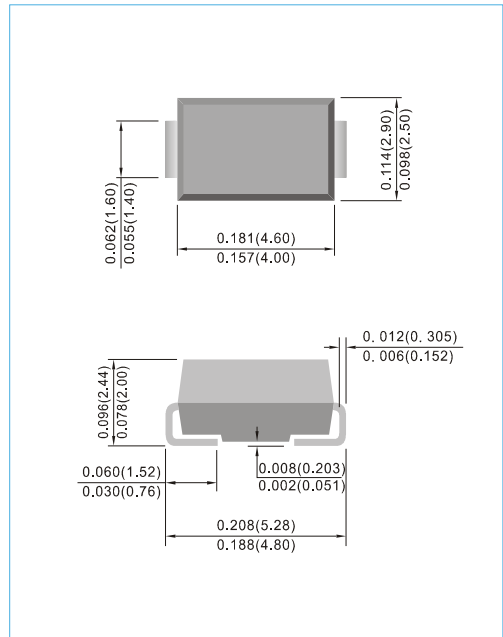
- Low forward voltage drop, low reverse current
- High Efficiency
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### 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)

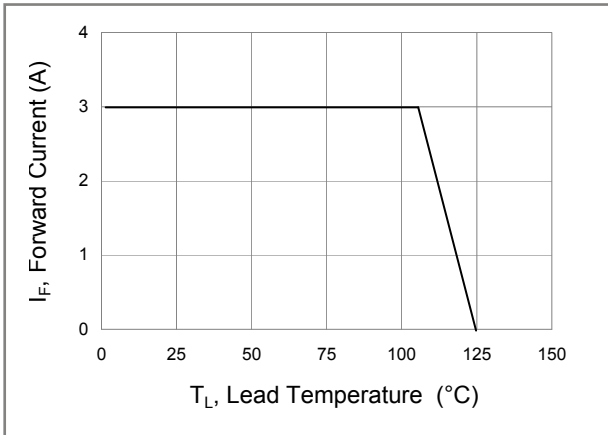
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT	
Instantaneous forward voltage (Note 2)	V <sub>F</sub>	I <sub>F</sub> =1A	-	0.29	0.31	V	
		I <sub>F</sub> =2A	-	0.32	0.35		
		I <sub>F</sub> =3A	-	0.35	0.37		
			T <sub>J</sub> =25°C	-	0.17	-	V
			T <sub>J</sub> =125°C	-	0.21	-	
			T <sub>J</sub> =125°C	-	0.26	-	
Reverse current	I <sub>R</sub>	V <sub>R</sub> =21V	-	0.3	0.5	mA	
		T <sub>J</sub> =25°C T <sub>J</sub> =125°C	-	90	-		
			T <sub>J</sub> =25°C	-	0.8	1	mA
			T <sub>J</sub> =125°C	-	160	-	

**NOTES:**

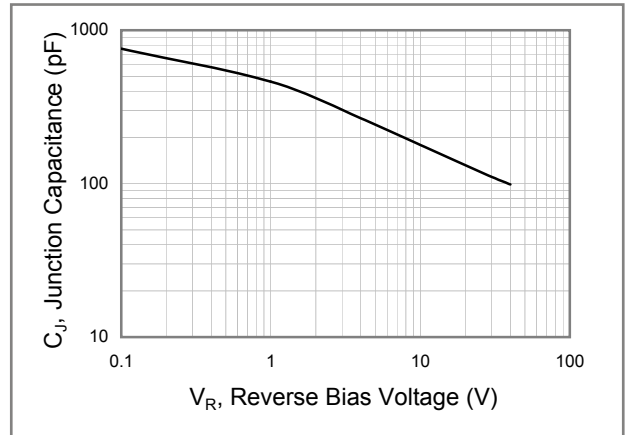
1. Mounted on P.C. Board with 25mm<sup>2</sup> copper pad areas.
2. Pulse Test with PW =300µsec, 1% Duty Cycle.



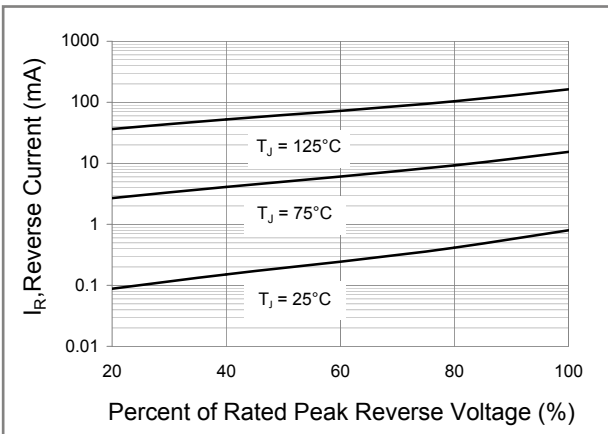
**SX33L**



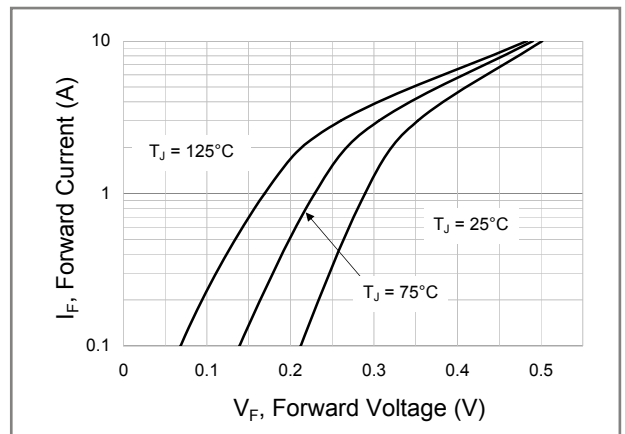
**Fig.1 Forward Current Derating Curve**



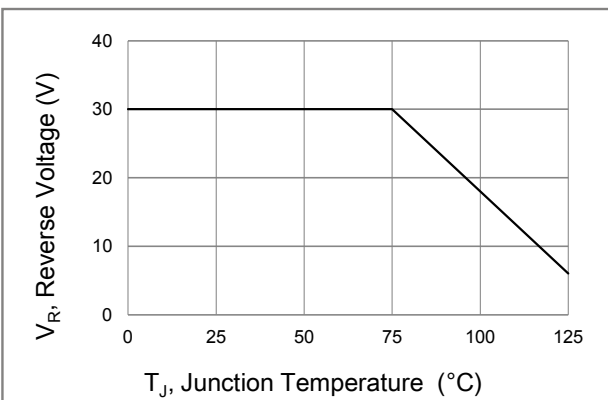
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**



**Fig.5 Operating Temperature Derating Curve**

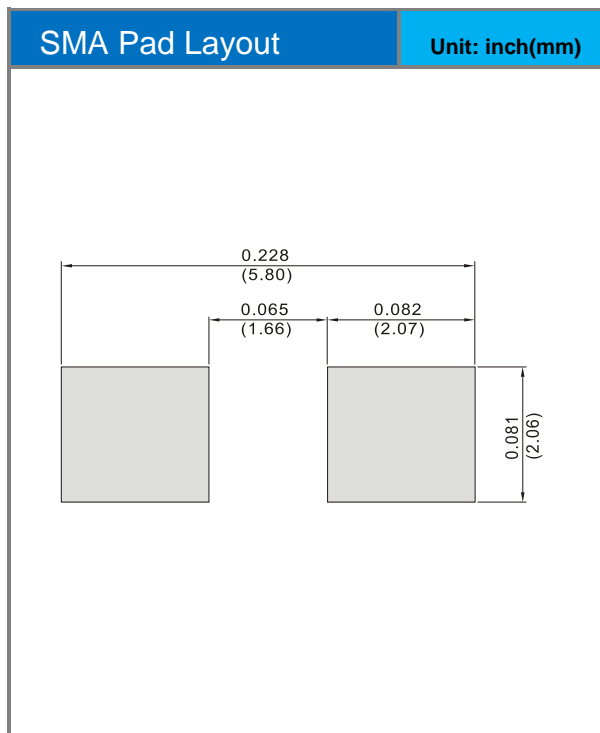


**SX33L**

**Part No Packing Code Version**

Part No Packing Code	Package Type	Packing Type	Marking	Version
SX33L_R1_00001	SMA	1.8K pcs / 7" reel	SX33L	Halogen free

**Mounting Pad Layout**





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