



# SX33L

## LOW VF SCHOTTKY BARRIER DIODE

**VOLTAGE** 30 Volts **CURRENT** 3.0 Amperes

**SMA / DO-214AC**

Unit : inch(mm)

### FEATURES

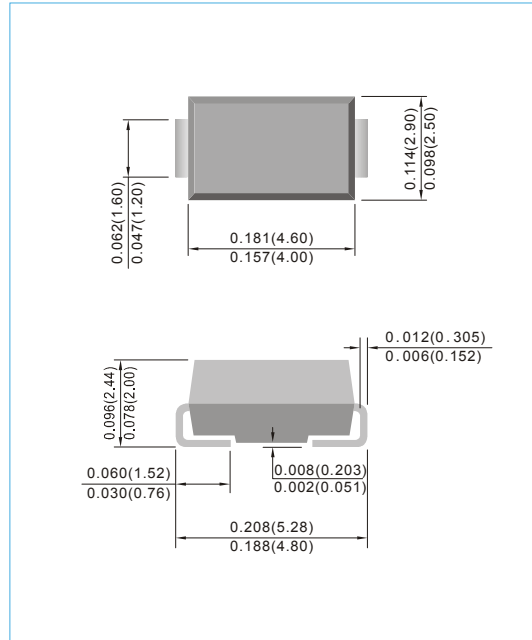
- Low forward voltage drop, low reverse current
- High Efficiency
- Lead free in comply with EU RoHS 2011/65/EU directives
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### 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: 0.0023 ounce, 0.0679 gram



### 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)

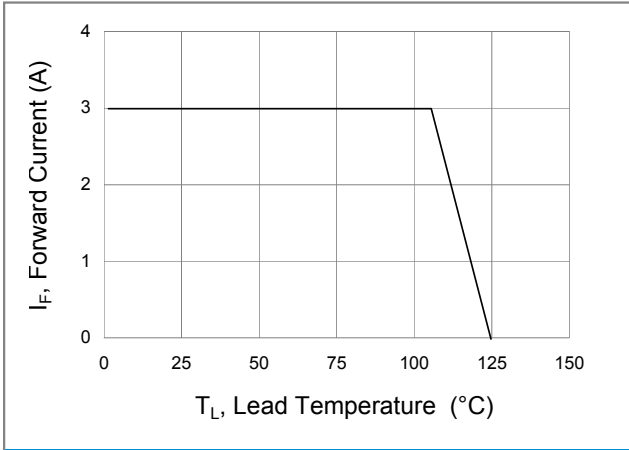
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT	
Instantaneous forward voltage (Note 2)	V <sub>F</sub>	I <sub>F</sub> =1A	-	0.29	0.31	V	
		I <sub>F</sub> =2A	-	0.32	0.35		
		I <sub>F</sub> =3A	-	0.35	0.37		
			I <sub>F</sub> =1A	-	0.17	-	V
			I <sub>F</sub> =2A	-	0.21	-	
			I <sub>F</sub> =3A	-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

#### NOTES:

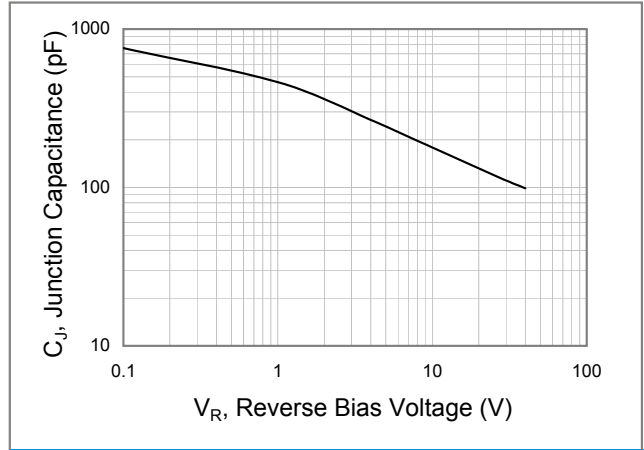
1. Mounted on P.C. Board with 25mm<sup>2</sup> copper pad areas.
2. Pulse Test with PW =300µsec, 1% Duty Cycle.



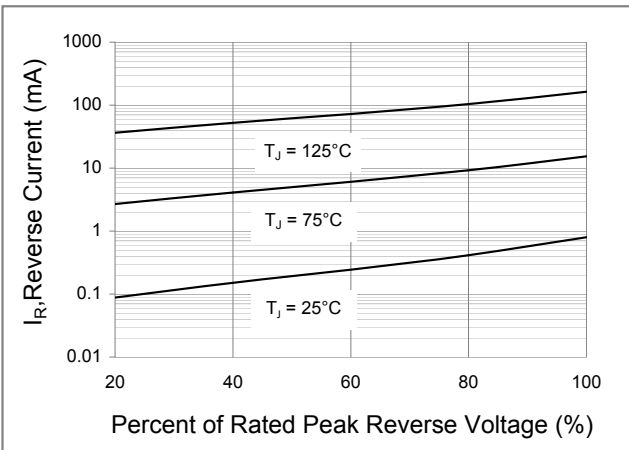
**SX33L**



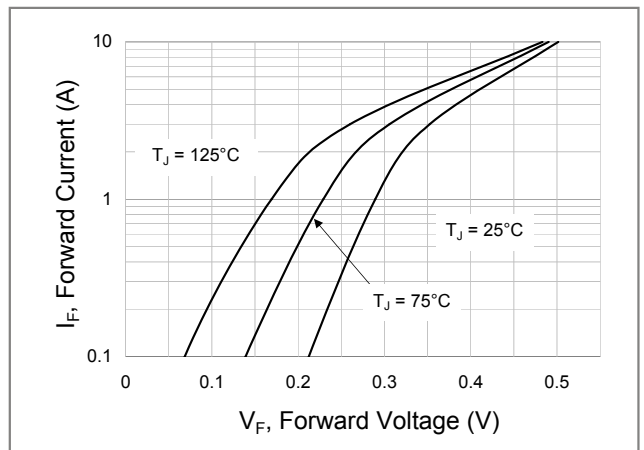
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**

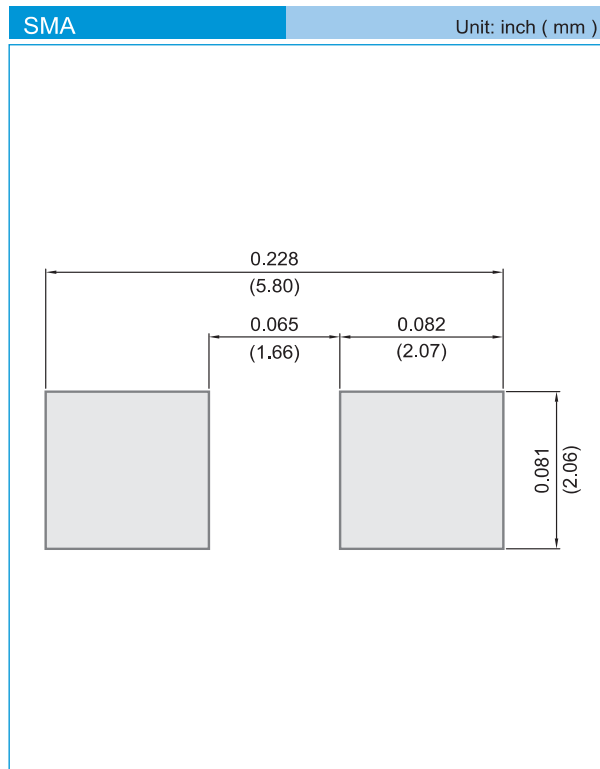


**Fig.4 Typical Forward Characteristics**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information
  - T/R - 7.5K per 13" plastic Reel
  - T/R - 1.8Kper 7" plastic Reel



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## Part No\_packing code\_Version

SX33L\_R1\_00001

SX33L\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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