



# SXM36V

## ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

**Voltage**

**60 V**

**Current**

**3 A**

**SMA / DO-214AC**

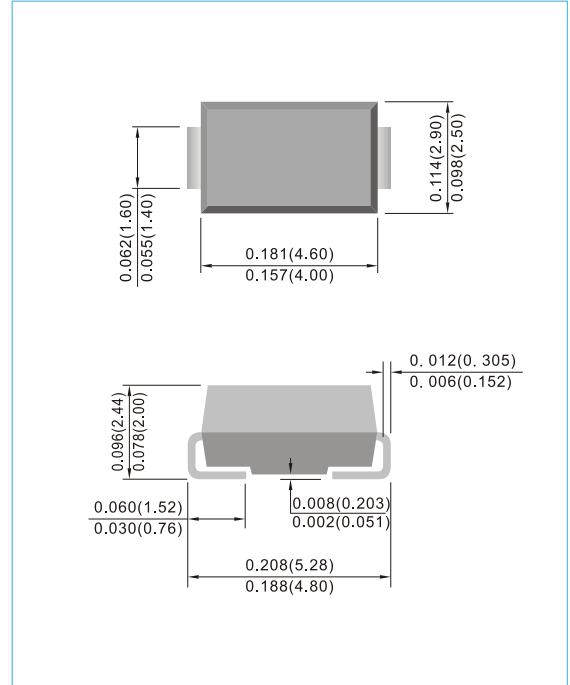
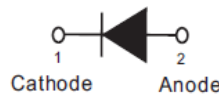
Unit : inch(mm)

### Features

- Ideal for automated placement
- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Low thermal resistance
- Ultra thin profile package for space constrained utilization
- Easy pick and place package suitable for automated handling
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### Mechanical Data

- Case: SMA 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, 0.068 grams
- Marking: Part number



### Maximum Ratings And Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	60	V
Maximum rms voltage	V <sub>RMS</sub>	42	V
Maximum dc blocking voltage	V <sub>R</sub>	60	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	3	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	80	A
Typical junction capacitance (V <sub>R</sub> =4V, f=1MHz)	C <sub>J</sub>	200	pF
Typical thermal resistance	(Note 2) R <sub>θJA</sub>	150	°C/W
	(Note 1) R <sub>θJC</sub>	20	
Operating junction temperature range	T <sub>J</sub>	-55 to +150	°C
Storage temperature range	T <sub>STG</sub>	-55 to +150	°C

Note : 1. Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area.  
2. Mounted on a FR4 PCB, single-sided copper, mini pad.



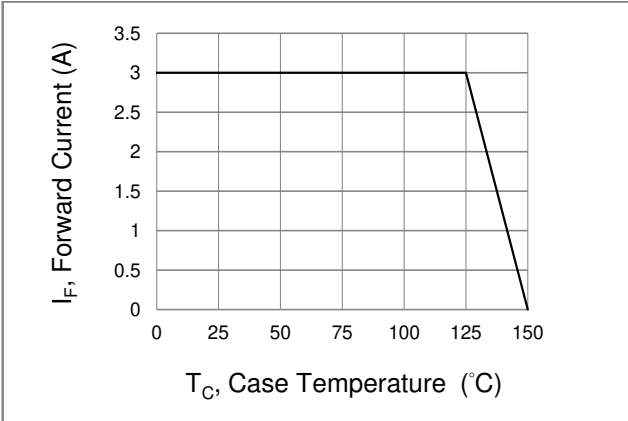
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Electrical Characteristics ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

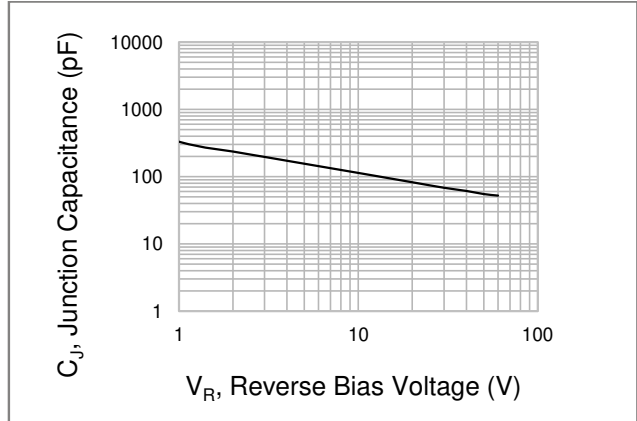
PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Breakdown voltage	$V_{BR}$	$I_R=0.5\text{mA}$	$T_J=25^{\circ}\text{C}$	60	-	-	V
Instantaneous forward voltage	$V_F$	$I_F=1\text{A}$	$T_J=25^{\circ}\text{C}$	-	0.34	-	V
		$I_F=3\text{A}$		-	0.45	0.5	V
		$I_F=1\text{A}$	$T_J=125^{\circ}\text{C}$	-	0.27	-	V
		$I_F=3\text{A}$		-	0.43	-	V
Reverse current	$I_R$	$V_R=48\text{V}$	$T_J=25^{\circ}\text{C}$	-	35	-	$\mu\text{A}$
		$V_R=60\text{V}$	$T_J=25^{\circ}\text{C}$	-	-	220	$\mu\text{A}$
			$T_J=125^{\circ}\text{C}$	-	10	-	$\text{mA}$



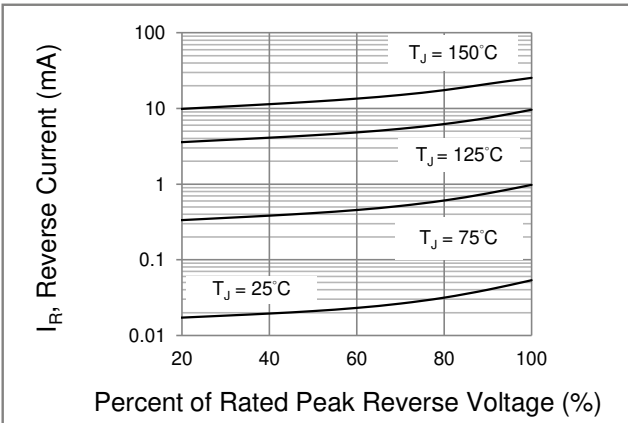
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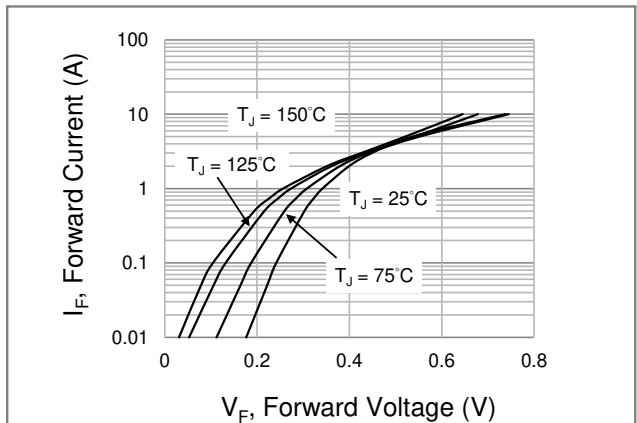
**Fig.1 Forward Current Derating Curve**



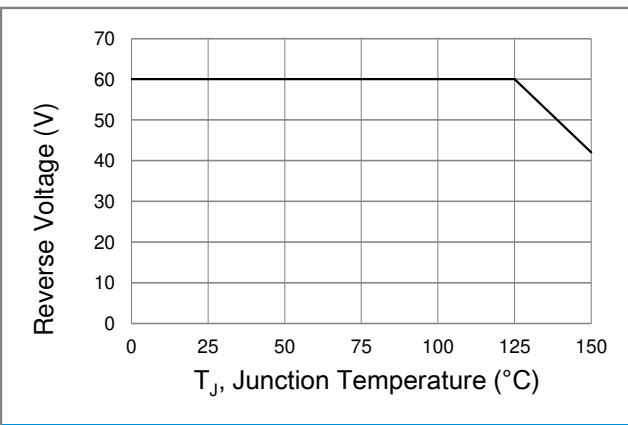
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

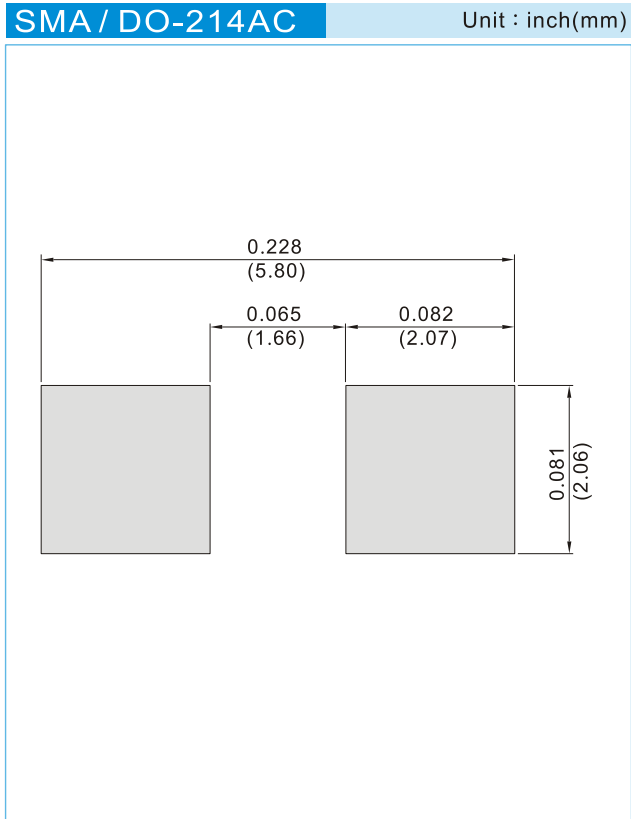


**Fig.5 Operating Temperature Derating Curve**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

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



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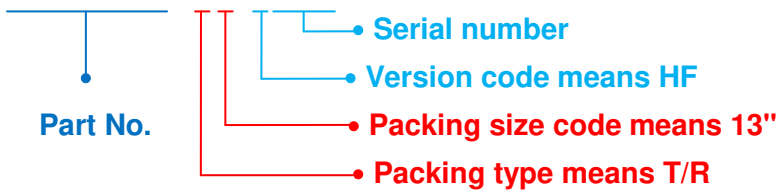
**Part No\_packing code\_Version**

SXM36V\_R1\_00001

SXM36V\_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)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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