



SXM345AV

ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

Voltage

45 V

Current

3 A

SMA / DO-214AC

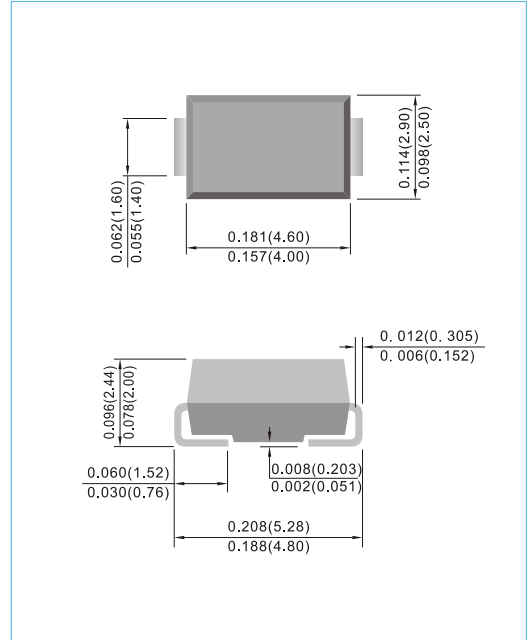
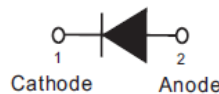
Unit : inch(mm)

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_A=25° C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	45	V
Maximum rms voltage	V _{RMS}	32	V
Maximum dc blocking voltage	V _R	45	V
Maximum average forward rectified current	I _{F(AV)}	3	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	80	A
Typical thermal resistance	(Note 1) R _{θJC}	22	°C/W
	(Note 2) R _{θJA}	150	
Operating junction temperature range	T _J	-55 to +150	°C
Storage temperature range	T _{STG}	-55 to +150	°C

Note : 1. Mounted on a FR4 PCB, single-sided copper, with 10cm*10cm 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}	$I_R=0.5\text{mA}$	$T_J=25^\circ\text{C}$	45	-	-	V
Instantaneous forward voltage	V_F	$I_F=1\text{A}$	$T_J=25^\circ\text{C}$	-	0.34	-	V
		$I_F=3\text{A}$	$T_J=25^\circ\text{C}$	-	0.42	0.47	V
		$I_F=1\text{A}$	$T_J=125^\circ\text{C}$	-	0.27	-	V
		$I_F=3\text{A}$	$T_J=125^\circ\text{C}$	-	0.38	-	V
Reverse current	I_R	$V_R=36\text{V}$	$T_J=25^\circ\text{C}$	-	16	-	μA
		$V_R=45\text{V}$	$T_J=25^\circ\text{C}$	-	-	60	μA
		$V_R=45\text{V}$	$T_J=125^\circ\text{C}$	-	4	-	mA

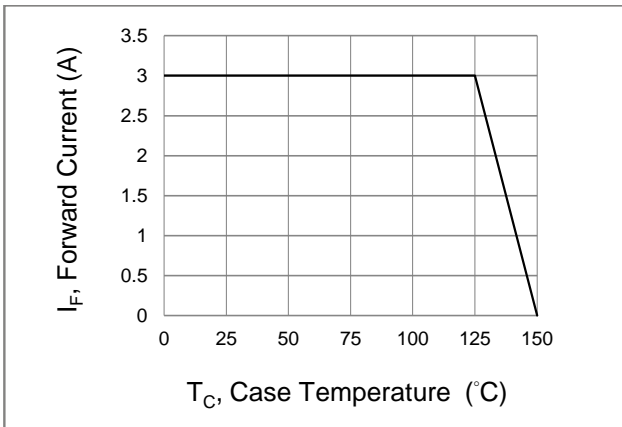


Fig.1 Forward Current Derating Curve

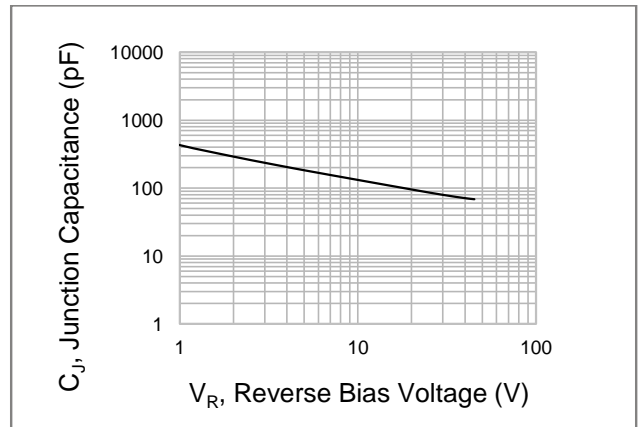


Fig.2 Typical Junction Capacitance

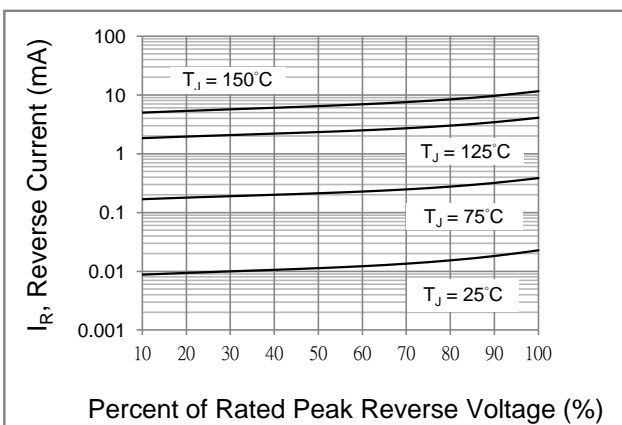


Fig.3 Typical Reverse Characteristics

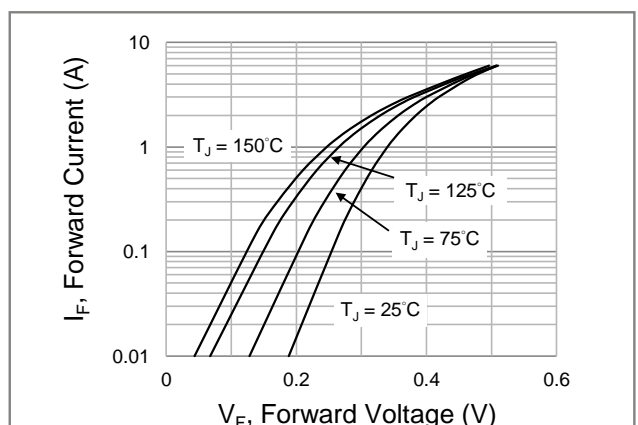
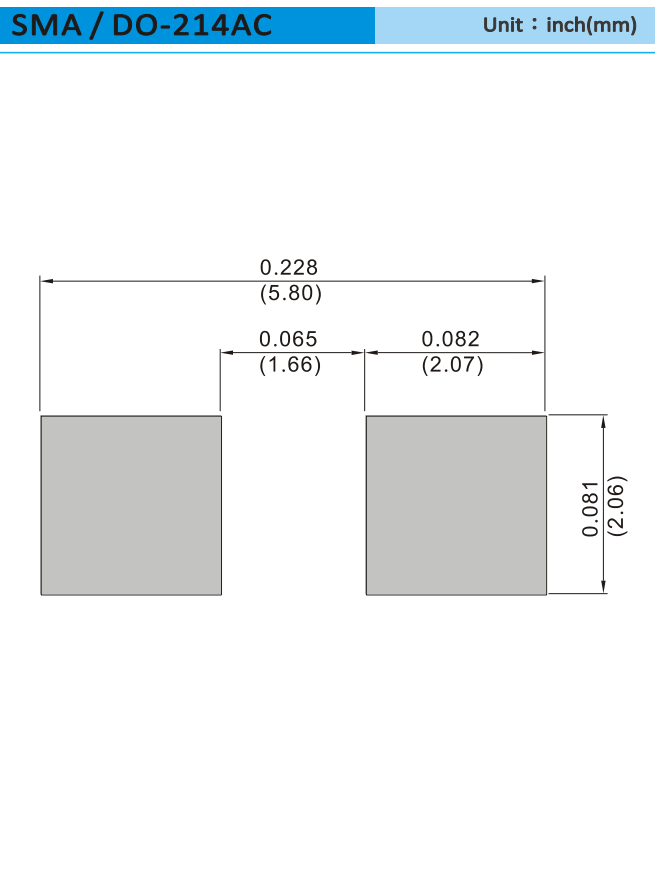


Fig.4 Typical Forward Characteristics



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MOUNTING PAD LAYOUT



ORDER INFORMATION

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



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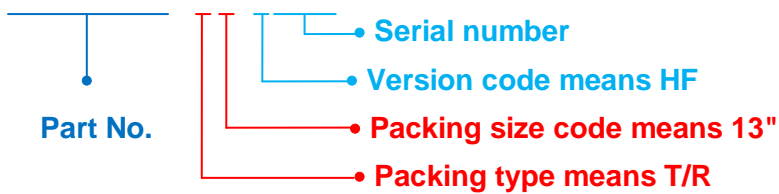
Part No_packing code_Version

SXM345AV_R1_00001

SXM345AV_R2_00001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th 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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