



SXM54ALF

ULTRA LOW VF SCHOTTKY RECTIFIER

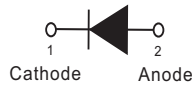
VOLTAGE 45 Volt **CURRENT** 5 Ampere

FEATURES

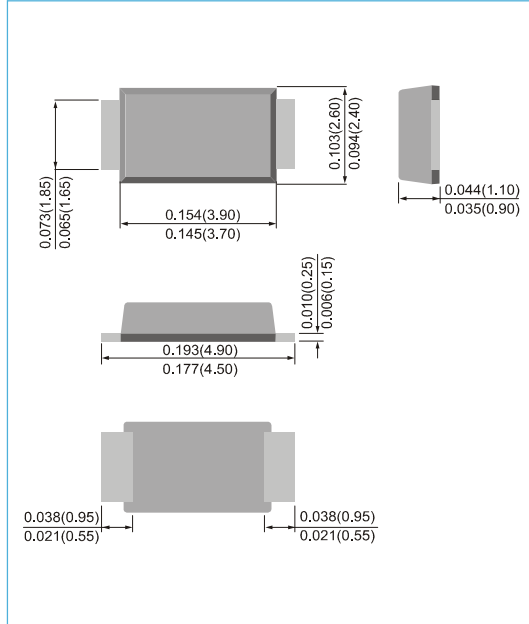
- Ideal for automated placement
- Ultra Low forward voltage drop, low power loss
- High efficiency operation
- Low thermal resistance
- Ultra thin profile package for space constrained utilization
- Package suitable for automated handling
- Lead free in compliance with EU RoHS 2.0
- Green molding compound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

MECHANICAL DATA

- Case : SMAF Molded Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Standard packaging : 12mm tape (EIA-481)
- Weight : 0.0012 ounces, 0.0328 grams
- Marking : Part number



SMAF Unit : inch(mm)



MAXIMUM RATINGS(T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	45	V
Maximum RMS Voltage	V _{RMS}	32	V
Maximum DC Blocking Voltage	V _R	45	V
Maximum Average Rectified Output Current	I _{F(AV)}	5	A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	80	A
Typical Junction Capacitance (V _R =4V, f=1MHz)	C _J	220	pF
Typical Thermal Resistance (Note 1) (Note 2)	R _{θJL} R _{θJA}	20 150	°C/W
Operating Junction Temperature Range And Storage Temperature Range	T _J , T _{STG}	-55 to + 150	°C

NOTES: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°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage	V _{BR}	I _R =0.5mA T _J =25°C	45	-	-	V
Instantaneous forward voltage	V _F	I _F =1A T _J =25°C	-	0.34	-	V
		I _F =2A T _J =25°C	-	0.38	-	V
		I _F =5A T _J =25°C	-	0.48	0.54	V
		I _F =1A T _J =125°C	-	0.26	-	V
Reverse current	I _R	I _F =2A T _J =125°C	-	0.33	-	V
		I _F =5A T _J =125°C	-	0.5	-	V
		V _R =36V T _J =25°C	-	20	-	μA
Reverse current	I _R	V _R =45V T _J =25°C	-	-	210	μA
		V _R =45V T _J =100°C	-	-	10	mA
		V _R =45V T _J =125°C	-	7	-	mA



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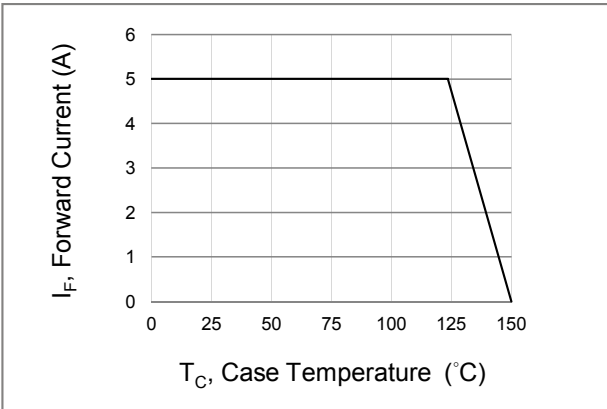


Fig.1 Forward Current Derating Curve

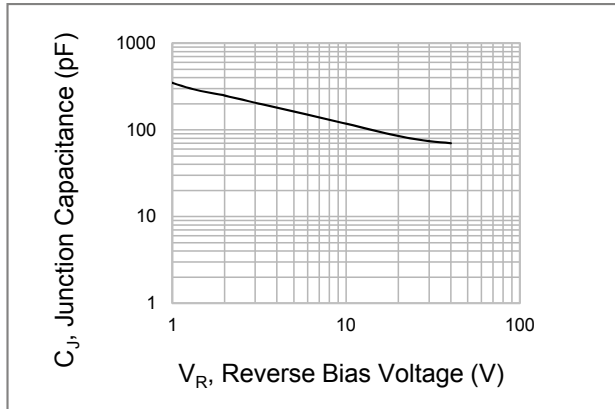


Fig.2 Typical Junction Capacitance

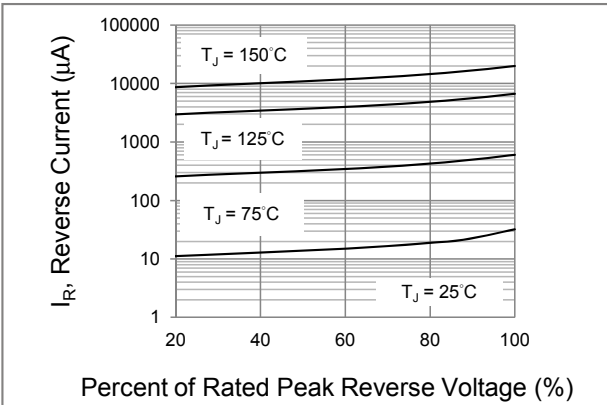


Fig.3 Typical Reverse Characteristics

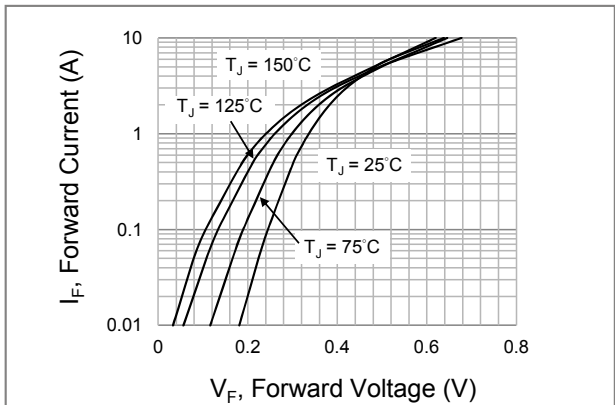


Fig.4 Typical Forward Characteristics

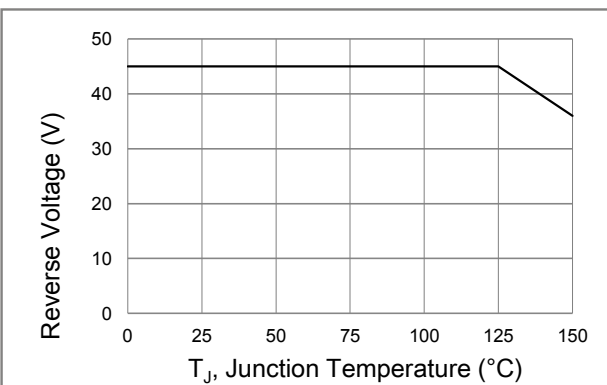


Fig.5 Operating Temperature Derating Curve

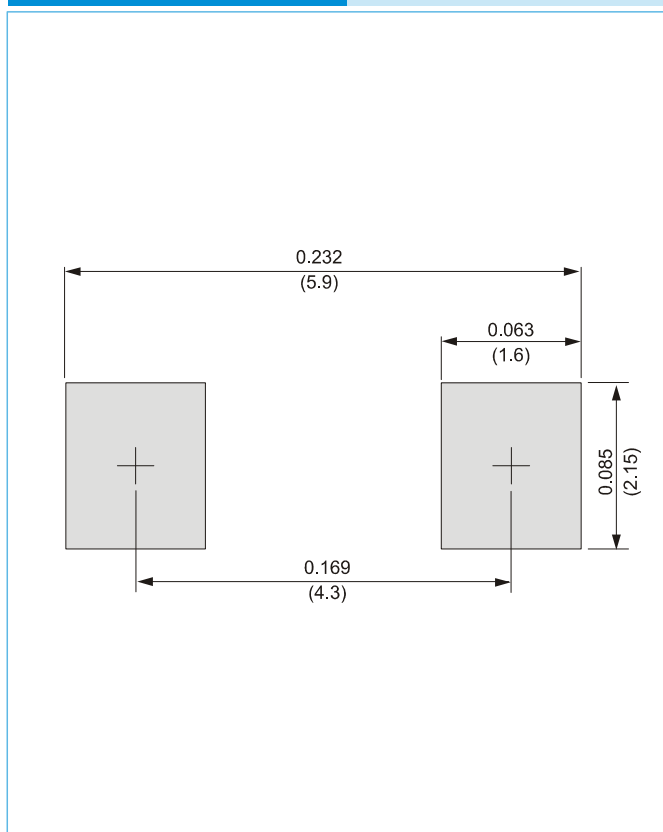


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MOUNTING PAD LAYOUT

SMAF

Unit:inch(mm)



ORDER INFORMATION

- Packing information
 - T/R - 10K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel



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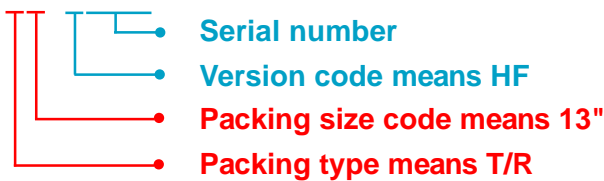
Part No_packing code_Version

SXM54ALF_R2_00001

For example :

RB500V-40_R2_00001

Part No.



Packing type	Packing Code XX			Version Code XXXXX		
	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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