



SXT55LF

ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

Voltage

50 V

Current

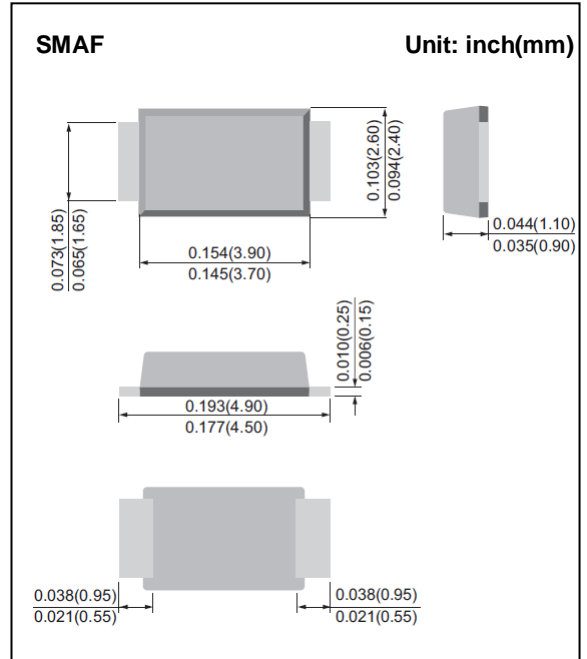
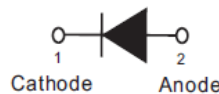
5 A

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 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

Mechanical Data

- Case: SMAF 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: 0.0011 ounces, 0.0328 grams



Maximum Ratings And Electrical Characteristics (T_A=25° C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	50	V
Maximum rms voltage	V _{RMS}	35	V
Maximum dc blocking voltage	V _R	50	V
Maximum average forward rectified 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 thermal resistance	(Note 2) R _{θJA}	150	°C/W
	(Note 1) R _{θJC}	22	
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 100cm² copper pad area.
 2. Mounted on a FR4 PCB, single-sided copper, mini pad.



SXT55LF

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

PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Breakdown voltage	V_{BR}	$I_R=0.5\text{mA}$	$T_J=25^{\circ}\text{C}$	50	-	-	V
Instantaneous forward voltage	V_F	$I_F=1\text{A}$	$T_J=25^{\circ}\text{C}$	-	0.32	-	V
		$I_F=2\text{A}$		-	0.37	-	
		$I_F=5\text{A}$		-	0.45	0.5	
		$I_F=1\text{A}$	$T_J=125^{\circ}\text{C}$	-	0.2	-	V
$I_F=2\text{A}$	-	0.29		-			
Reverse current	I_R	$V_R=40\text{V}$	$T_J=25^{\circ}\text{C}$	-	30	-	μA
		$V_R=50\text{V}$	$T_J=25^{\circ}\text{C}$	-	-	100	μA
			$T_J=125^{\circ}\text{C}$	-	15	-	mA



SXT55LF

TYPICAL CHARACTERISTIC CURVES

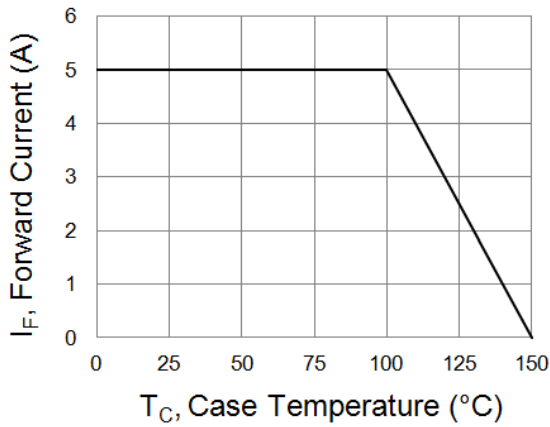


Fig.1 Forward Current Derating Curve

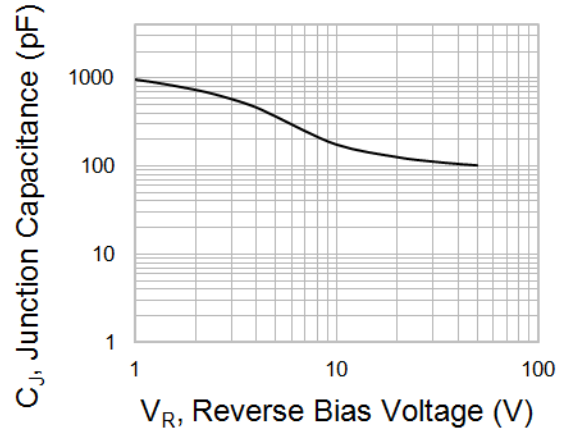


Fig.2 Typical Junction Capacitance

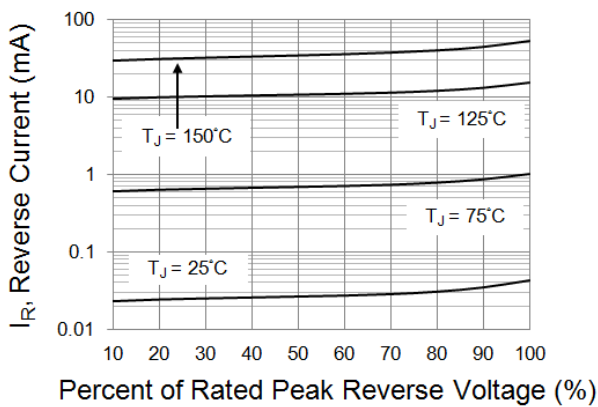


Fig.3 Typical Reverse Characteristics

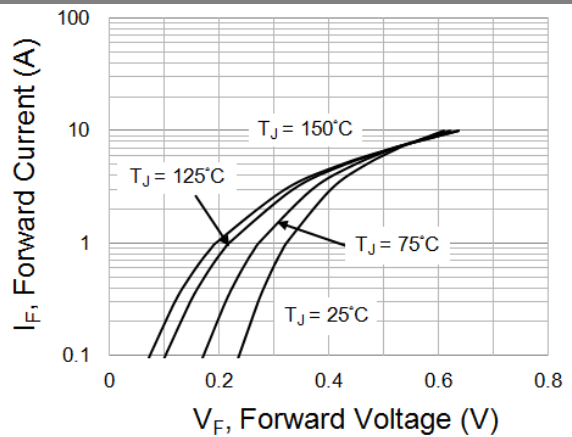


Fig.4 Typical Forward Characteristics

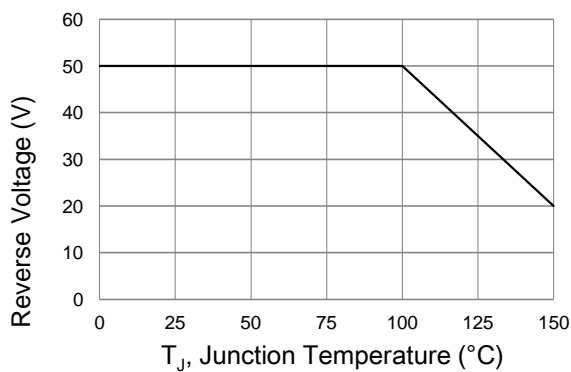


Fig.5 Operating Temperature Derating Curve

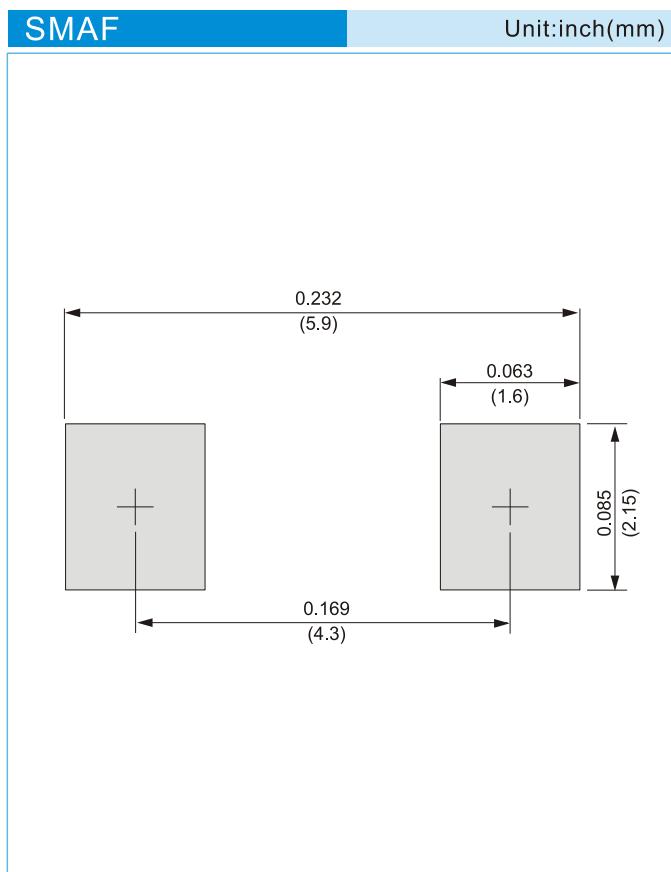


SXT55LF

Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
SXT55LF_R1_00001	SMAF	3K pcs / 7" reel	SXT55LF	Halogen free
SXT55LF_R2_00001	SMAF	10K pcs / 13" reel	SXT55LF	Halogen free

MOUNTING PAD LAYOUT





SXT55LF

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