

# SBT1545LS

## ULTRA LOW VF SCHOTTKY RECTIFIER

**VOLTAGE** 45 Volts **CURRENT** 15 Amperes

### FEATURES

- Ultra Low forward voltage drop, low power losses
- High efficiency operation
- Lead free in comply with EU RoHS 2011/65/EU directives

### MECHANICAL DATA

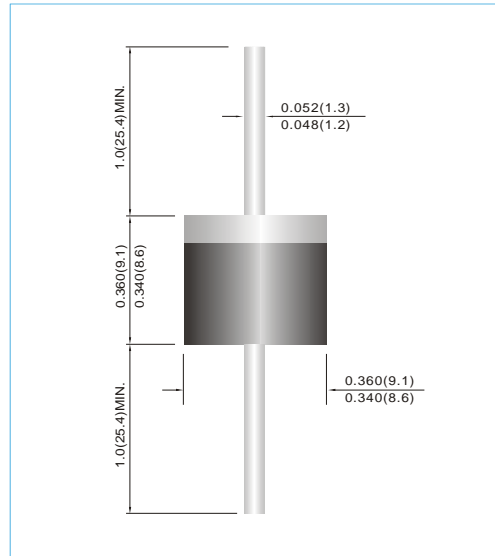
Case : P-600 molded plastic

Terminals : Axial leads,solderable per MIL-STD-750, Method 2026

Polarity : Color band denotes cathode end

Weight: 0.0719 ounces, 2.04 grams.

**P-600** Unit : inch(mm)



### MAXIMUM RATINGS( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

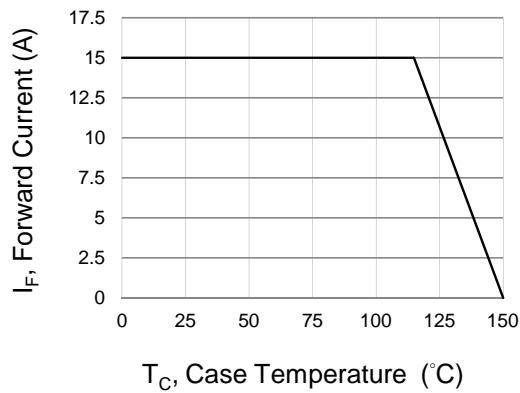
PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	45	V
Maximum rms voltage	$V_{RMS}$	32	V
Maximum dc blocking voltage	$V_R$	45	V
Maximum average forward rectified current	$I_{F(AV)}$	15	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	275	A
Typical thermal resistance (Note 1)	$R_{\theta JA}$ $R_{\theta JL}$	30 12	$^{\circ}\text{C/W}$
Operating junction temperature range	$T_J$	-55 to + 150	$^{\circ}\text{C}$
Storage temperature range	$T_{STG}$	-55 to + 150	$^{\circ}\text{C}$

Note : 1. Thermal Resistance from Junction to Ambient and from Junction to lead length 0.375"(9.5mm) P.C.B. mounted

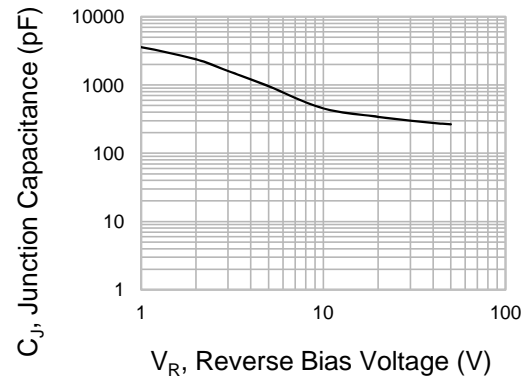
### ELECTRICAL CHARACTERISTICS( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage	$V_{BR}$	$I_R=0.5\text{mA}$	45	-	-	V
Instantaneous forward voltage	$V_F$	$I_F=5\text{A}$	-	0.34	-	V
		$I_F=10\text{A}$	-	0.38	-	
		$I_F=15\text{A}$	-	0.41	0.46	
		$I_F=5\text{A}$	-	0.23	-	V
		$I_F=10\text{A}$	-	0.3	-	
		$I_F=15\text{A}$	-	0.35	-	
Reverse current	$I_R$	$V_R=36\text{V}$	-	105	-	$\mu\text{A}$
		$V_R=45\text{V}$	-	-	310	$\mu\text{A}$
		$T_J=25^{\circ}\text{C}$ $T_J=125^{\circ}\text{C}$	-	60	-	$\text{mA}$

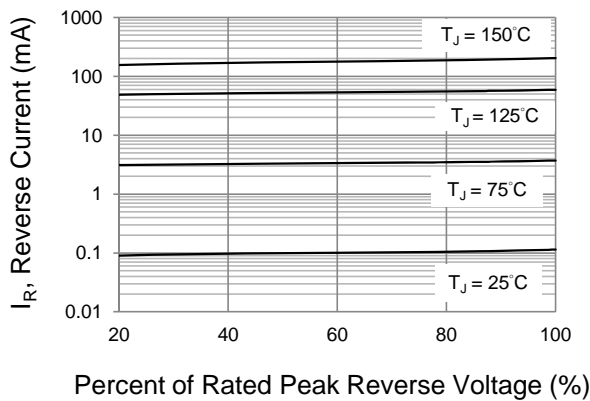
## SBT1545LS



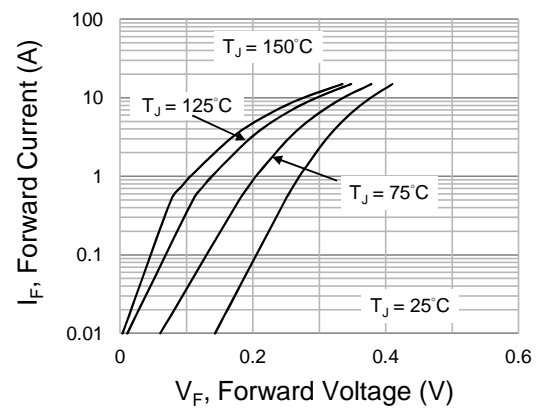
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

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### Part No\_packing code\_Version

SBT1545LS\_AY\_00001

SBT1545LS\_AY\_10001

SBT1545LS\_B0\_00001

SBT1545LS\_B0\_10001

SBT1545LS\_R2\_00001

SBT1545LS\_R2\_10001

For example :

**RB500V-40\_R2\_00001**

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

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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