



# SB1545S

## SCHOTTKY RECTIFIER

**VOLTAGE** 45 Volt **CURRENT** 15 Ampere

### FEATURES

- Low power loss
- High efficiency operation
- Lead free in compliance with EU RoHS 2011/65/EU directive

### MECHANICAL DATA

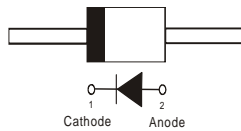
Case : P-600 molded plastic

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

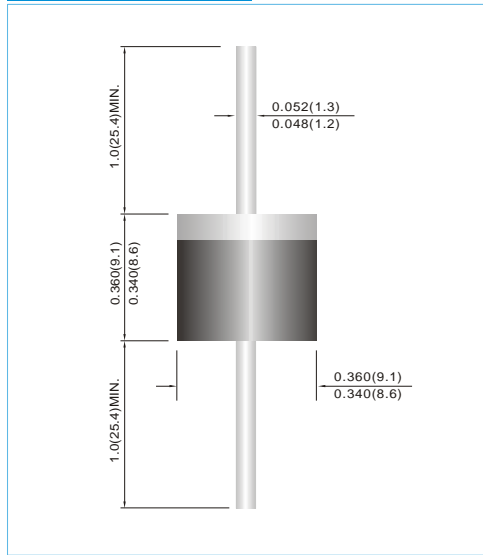
Marking : Part number

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)	$R_{\theta JL}$	20	$^{\circ}\text{C}/\text{W}$
Operating junction temperature range	$T_J$	-55 to + 150	$^{\circ}\text{C}$
Storage temperature range	$T_{STG}$	-55 to + 150	$^{\circ}\text{C}$
Junction temperature in DC forward current without reverse bias, $t \leq 1$ h (Note 2)	$T_J$	200	$^{\circ}\text{C}$

Note : 1. The testing condition of the thermal resistance (junction to lead) is based on 10 mm lead length between two 10cm x 10cm x 0.5mm copper pad

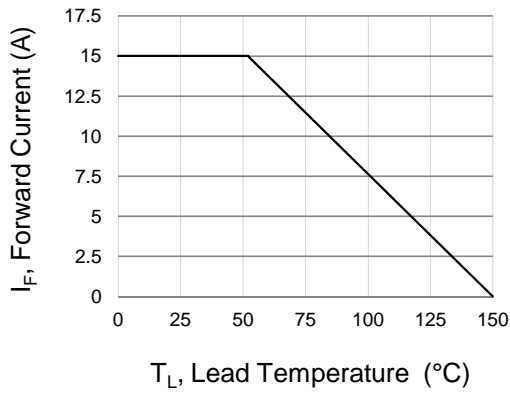
2.Meets the bypass diode thermal test required by IEC 61215 ed. 2

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

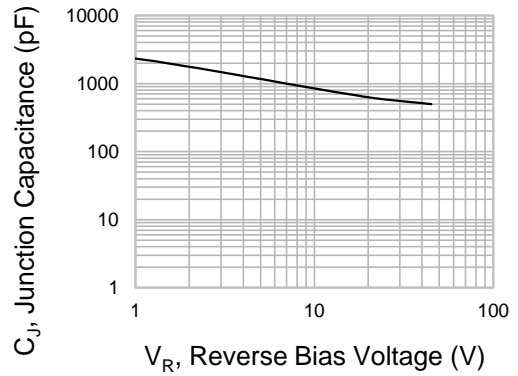
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage	$V_{BR}$	$I_R=0.5\text{mA}$ $T_J=25^{\circ}\text{C}$	45	-	-	V
Instantaneous forward voltage	$V_F$	$I_F=1\text{A}$ $T_J=25^{\circ}\text{C}$	-	0.31	-	V
		$I_F=5\text{A}$ $T_J=25^{\circ}\text{C}$	-	0.37	-	V
		$I_F=15\text{A}$ $T_J=25^{\circ}\text{C}$	-	0.43	0.5	V
		$I_F=1\text{A}$ $T_J=125^{\circ}\text{C}$	-	0.18	-	V
Reverse current	$I_R$	$V_R=36\text{V}$ $T_J=25^{\circ}\text{C}$	-	80	-	$\mu\text{A}$
		$V_R=45\text{V}$ $T_J=25^{\circ}\text{C}$	-	-	200	$\mu\text{A}$
		$V_R=45\text{V}$ $T_J=125^{\circ}\text{C}$	-	55	-	$\text{mA}$



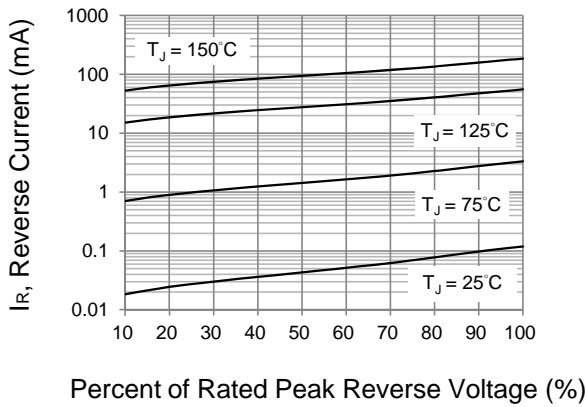
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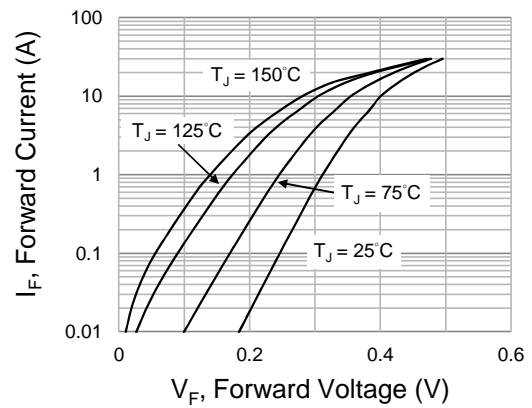
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**



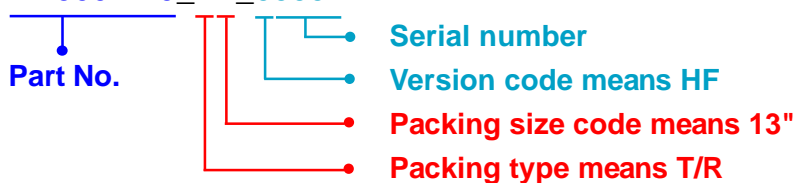
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## Part No\_packing code\_Version

SB1545S\_AY\_00001  
 SB1545S\_AY\_10001  
 SB1545S\_B0\_00001  
 SB1545S\_B0\_10001  
 SB1545S\_R2\_00001  
 SB1545S\_R2\_10001

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)	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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