

SBT1045LS

UITRA LOW VF SCHOTTKY RECTIFIER

VOLTAGE 45 Volts **CURRENT** 10 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

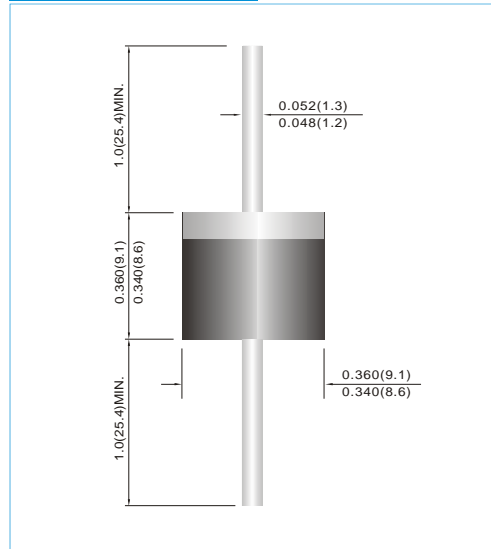
Case : P-600 molded plastic

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	$I_{F(AV)}$	10	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 15	$^{\circ}\text{C}/\text{W}$
Operating junction temperature range	T_J	-55 to + 150	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-55 to + 150	$^{\circ}\text{C}$

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	$I_F=1\text{A}$	-	0.34	-	V
		$I_F=5\text{A}$	-	0.41	-	
		$I_F=10\text{A}$	-	0.45	0.51	
		$I_F=1\text{A}$	-	0.21	-	V
		$I_F=5\text{A}$	-	0.3	-	
		$I_F=10\text{A}$	-	0.37	-	
Reverse current	I_R	$V_R=36\text{V}$	-	10	-	μA
		$V_R=45\text{V}$	-	-	50	μA
		$T_J=25^{\circ}\text{C}$ $T_J=125^{\circ}\text{C}$	-	8	-	mA

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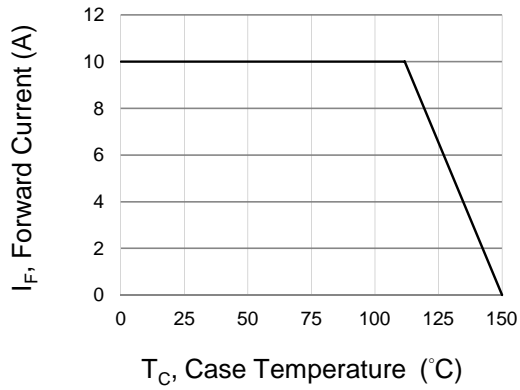


Fig.1 Forward Current Derating Curve

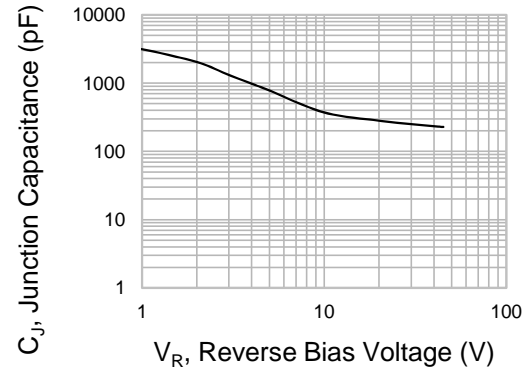


Fig.2 Typical Junction Capacitance

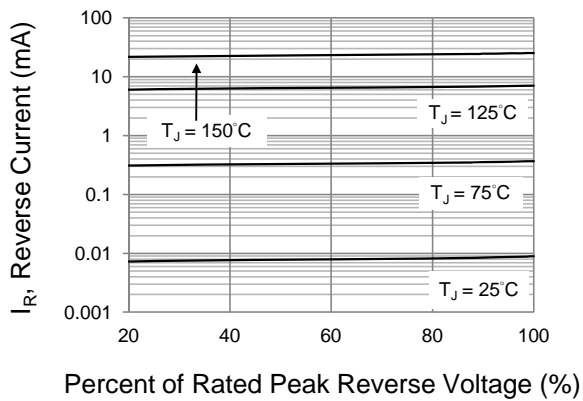


Fig.3 Typical Reverse Characteristics

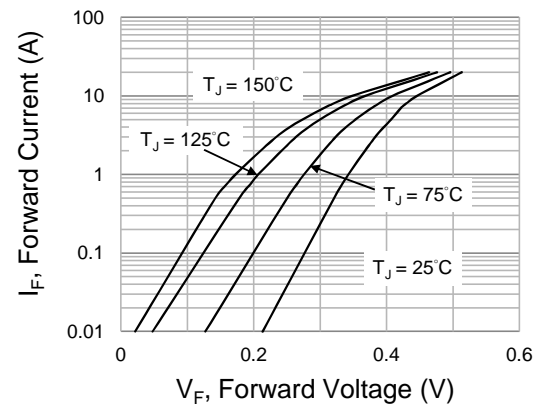


Fig.4 Typical Forward Characteristics

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Part No_packing code_Version

SBT1045LS_AY_00001

SBT1045LS_AY_10001

SBT1045LS_B0_00001

SBT1045LS_B0_10001

SBT1045LS_R2_00001

SBT1045LS_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 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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