SBT1045LS

UITRA LOW VF SCHOTTKY RECTIFIER

| **VOLTAGE** | 45 Volts | **CURRENT** | 10 Amperes |

FEATURES

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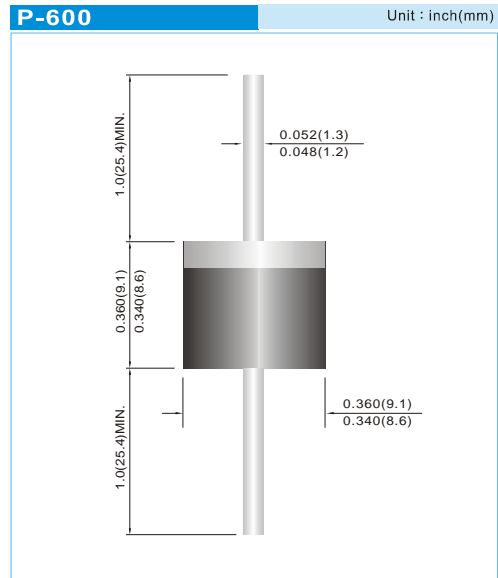- Lead free in comply with EU RoHS 2011/65/EU directives

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°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	°C/W
Operating junction temperature range	T_J	-55 to + 150	°C
Storage temperature range	T_{STG}	-55 to + 150	°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°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS		MIN.	TYP.	MAX.	UNIT
Breakdown voltage	V_{BR}	I_R=0.5mA		45	-	-	V
Instantaneous forward voltage	V_F	I_F=1A I_F=5A T_J=25°C I_F=10A		- - -	0.34 0.41 0.45	- - 0.51	V
		I_F=1A I_F=5A T_J=125°C I_F=10A		- - -	0.21 0.3 0.37	- - -	V
Reverse current	I_R	V_R=36V		-	10	-	μA
		V_R=45V	T_J=25°C T_J=125°C	- -	- 8	50 -	μA mA
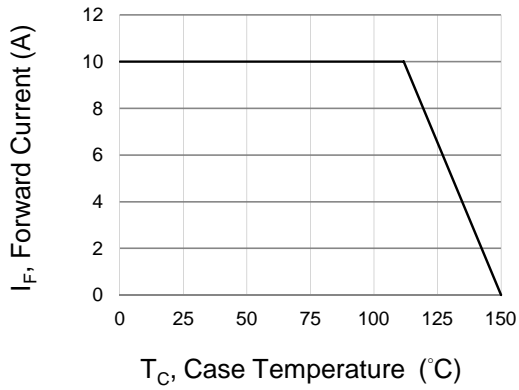
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Fig.1 Forward Current Derating Curve

I_F, Forward Current (A) vs T_C, Case Temperature (°C)
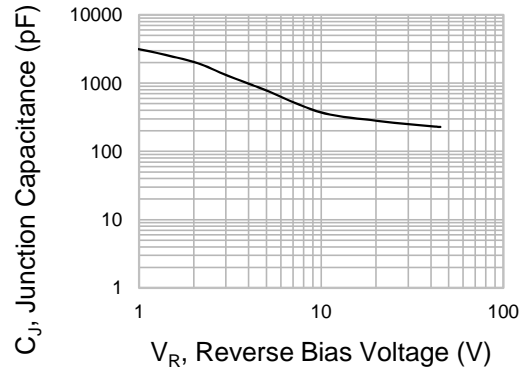
Fig.2 Typical Junction Capacitance

C_J, Junction Capacitance (pF) vs V_R, Reverse Bias Voltage (V)
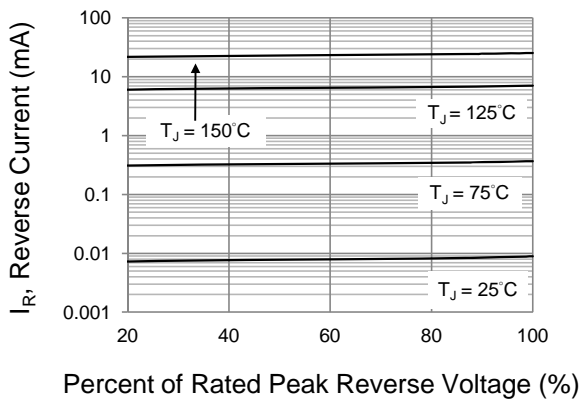
Fig.3 Typical Reverse Characteristics

I_R, Reverse Current (mA) vs Percent of Rated Peak Reverse Voltage (%)

$T_J = 150°C$
$T_J = 125°C$
$T_J = 75°C$
$T_J = 25°C$
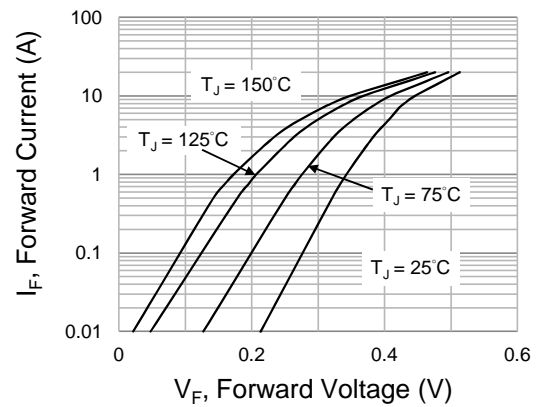
Fig.4 Typical Forward Characteristics

I_F, Forward Current (A) vs V_F, Forward Voltage (V)

$T_J = 150°C$
$T_J = 125°C$
$T_J = 75°C$
$T_J = 25°C$

SBT1045LS

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	1st Code	Packing size code	2nd Code	HF or RoHS	1st Code	2nd~5th 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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