

SBT30120LCT

ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

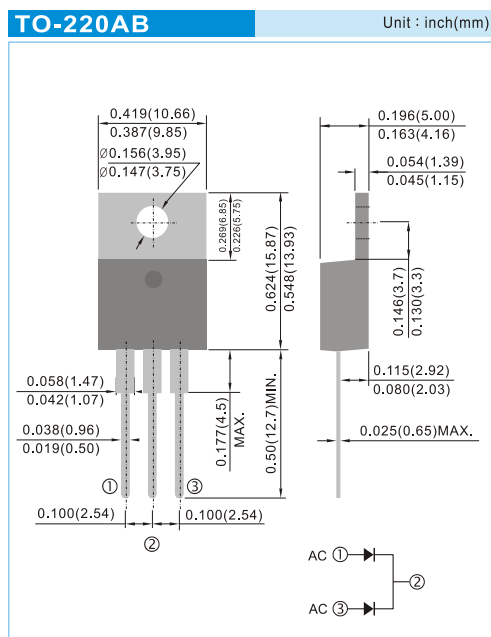
Voltage **120 V** **Current** **30 A**

Features

- Ideal for automated placement
- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Low thermal resistance
- 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: Molded plastic, TO-220AB
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.067 ounces, 1.89 grams
- Marking: Part number



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

PARAMETER		SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage		V_{RRM}	120	V
Maximum rms voltage		V_{RMS}	84	V
Maximum dc blocking voltage		V_R	120	V
Maximum average forward rectified current	per diode	$I_{F(AV)}$	15	A
	per device		30	
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load per diode		I_{FSM}	200	A
Typical thermal resistance per diode	(Note 1)	$R_{\theta JC}$	3	$^{\circ}\text{C/W}$
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. Device mounted on a infinite heatsink, then measured the center of the marking side.

SBT30120LCT

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

PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Breakdown voltage per diode	V_{BR}	$I_R=0.5\text{mA}$	$T_J=25^{\circ}\text{C}$	120	-	-	V
Instantaneous forward voltage per diode	V_F	$I_F=1\text{A}$	$T_J=25^{\circ}\text{C}$	-	0.48	-	V
		$I_F=5\text{A}$		-	0.6	-	
		$I_F=15\text{A}$		-	0.79	0.84	
		$I_F=1\text{A}$	$T_J=125^{\circ}\text{C}$	-	0.38	-	V
Reverse current per diode	I_R	$V_R=96\text{V}$	$T_J=25^{\circ}\text{C}$	-	2	-	μA
		$V_R=120\text{V}$	$T_J=25^{\circ}\text{C}$	-	-	30	μA
			$T_J=125^{\circ}\text{C}$	-	5	-	mA

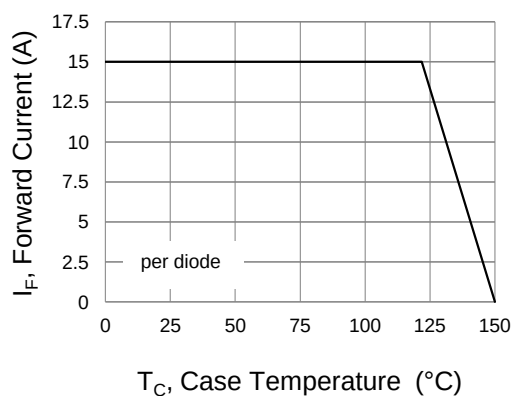


Fig.1 Forward Current Derating Curve

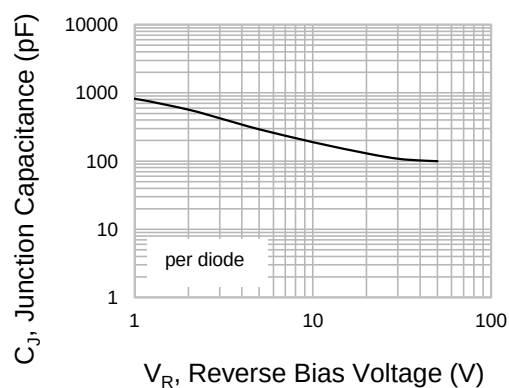


Fig.2 Typical Junction Capacitance

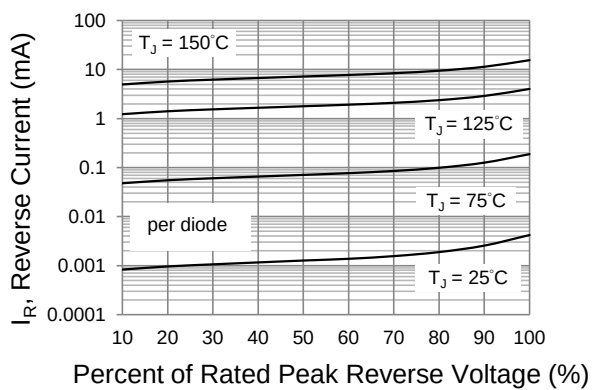


Fig.3 Typical Reverse Characteristics

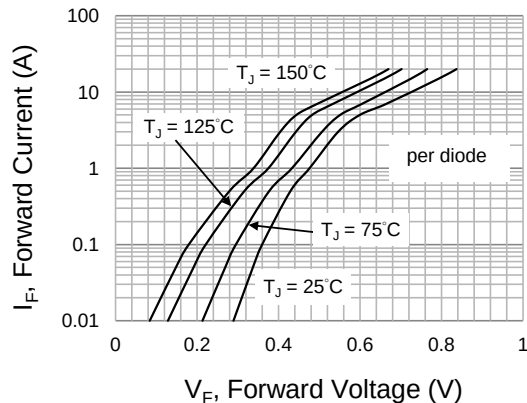


Fig.4 Typical Forward Characteristics

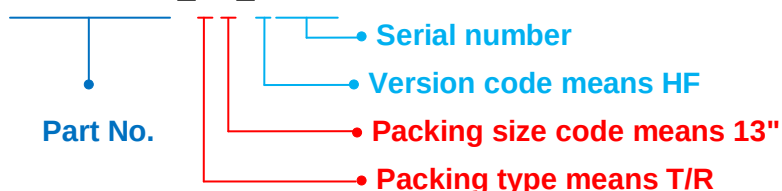
SBT30120LCT

Part No_packing code_Version

SBT30120LCT_T0_00001

For example :

RB500V-40_R2_00001



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			



SBT30120LCT

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.