



# SBT30100UCT

## ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

**Voltage**

**100 V**

**Current**

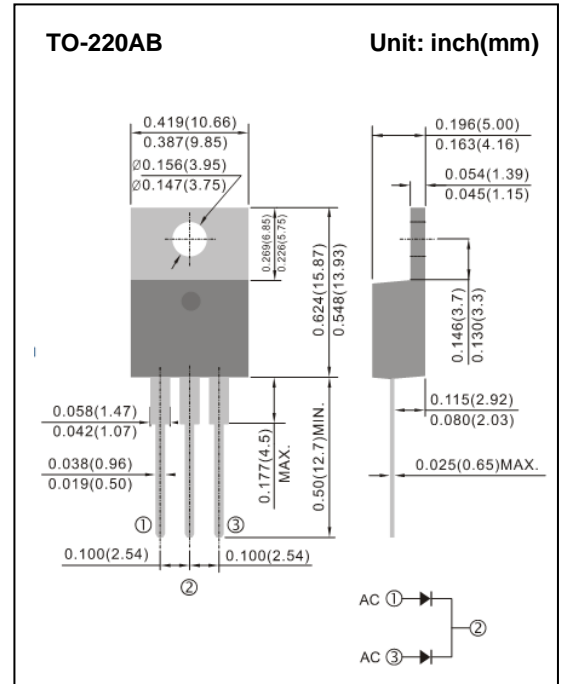
**30 A**

### Features

- Ultra low forward voltage drop, low power loss
- High efficiency operation
- 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



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

PARAMETER	SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	100	V
Maximum rms voltage	$V_{RMS}$	70	V
Maximum dc blocking voltage	$V_R$	100	V
Maximum average forward rectified current		per device	30
		per diode	15
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	250	A
Typical thermal resistance (Note 1)	$R_{\theta JC}$	2	$^\circ\text{C}/\text{W}$
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. Mounted on infinite heatsink.



## SBT30100UCT

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

PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Breakdown voltage	$V_{BR}$	$I_R=0.5\text{mA}$	$T_J=25^{\circ}\text{C}$	100	-	-	V
Instantaneous forward voltage	$V_F$	$I_F=5\text{A}$	$T_J=25^{\circ}\text{C}$	-	0.48	-	V
		$I_F=10\text{A}$		-	0.57	-	
		$I_F=15\text{A}$		-	0.66	0.71	
		$I_F=5\text{A}$	$T_J=125^{\circ}\text{C}$	-	0.41	-	V
$I_F=10\text{A}$	-	0.53		-			
Reverse current	$I_R$	$V_R=70\text{V}$	$T_J=25^{\circ}\text{C}$	-	5	-	$\mu\text{A}$
			$T_J=125^{\circ}\text{C}$	-	6	-	mA
		$V_R=100\text{V}$	$T_J=25^{\circ}\text{C}$	-	-	120	$\mu\text{A}$
			$T_J=125^{\circ}\text{C}$	-	12	-	mA



# SBT30100UCT

## TYPICAL CHARACTERISTIC CURVES

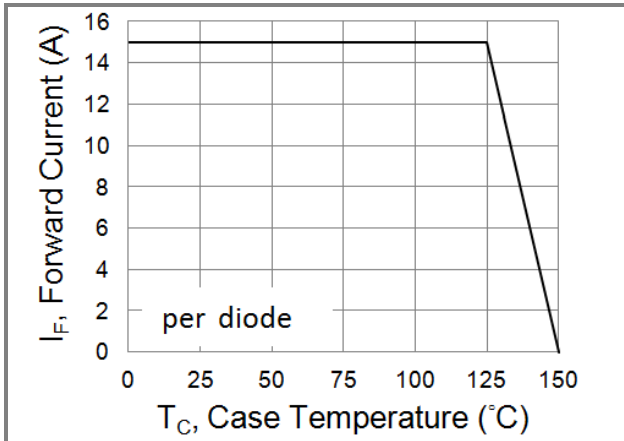


Fig.1 Forward Current Derating Curve

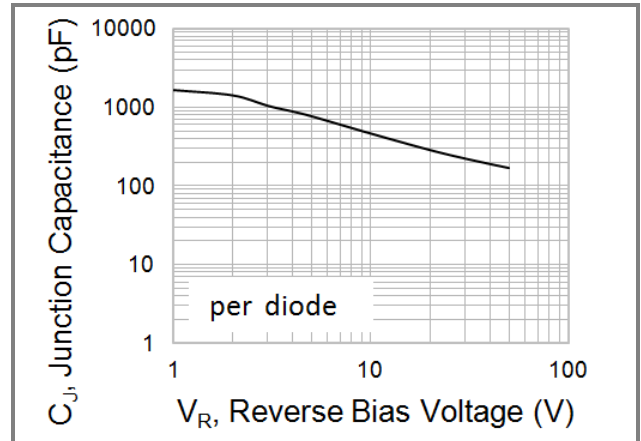


Fig.2 Typical Junction Capacitance

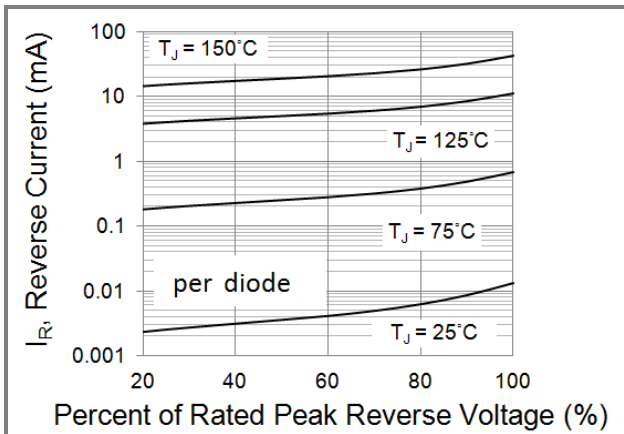


Fig.3 Typical Reverse Characteristics

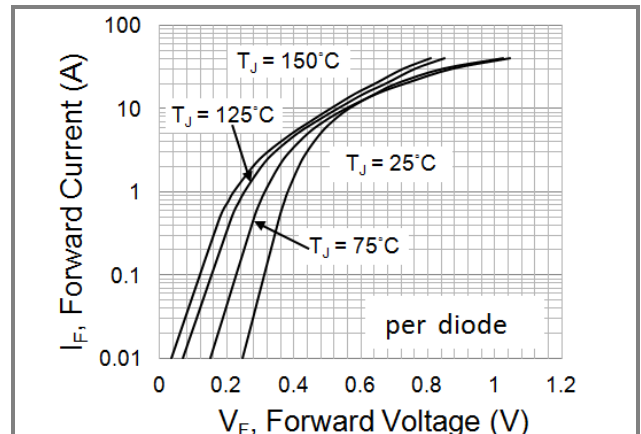


Fig.4 Typical Forward Characteristics

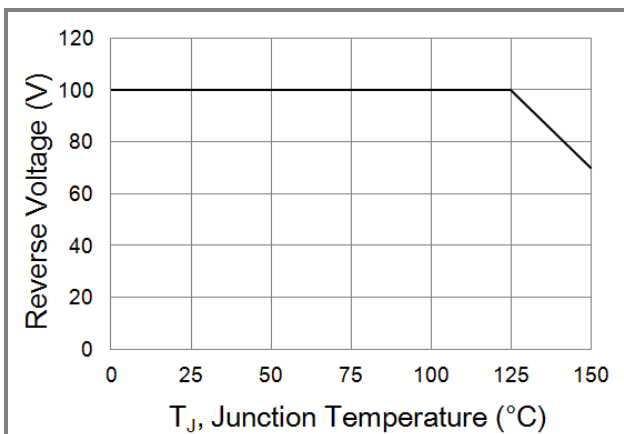


Fig.5 Operating Temperature Derating Curve



# SBT30100UCT

## Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
SBT30100UCT_T0_00001	TO-220AB	50pcs / Tube	SBT30100UCT	Halogen free



## SBT30100UCT

### 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.