



# SB1040LCT

## DUAL LOW VF SCHOTTKY RECTIFIER

**VOLTAGE** 40 Volt **CURRENT** 10 Ampere

### FEATURES

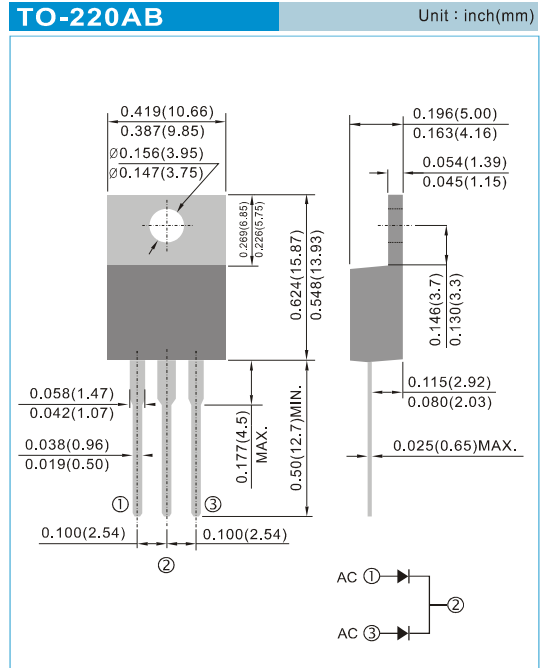
- Low forward voltage drop, low power losses
- High efficiency operation
- Lead free in compliance with EU RoHS 2011/65/EU directive

### MECHANICAL DATA

Case : TO-220AB, Plastic

Terminals : Solderable per MIL-STD-750, Method 2026

Weight: 0.065 ounces, 1.859 grams



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

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	40	V
Maximum average forward rectified current (Fig.1)	$I_{F(AV)}$	10 5	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode	$I_{FSM}$	125	A
Typical thermal resistance	$R_{\theta JC}$	2.5	$^\circ\text{C} / \text{W}$
Operating junction	$T_J$	-55 to + 125	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to + 150	$^\circ\text{C}$

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

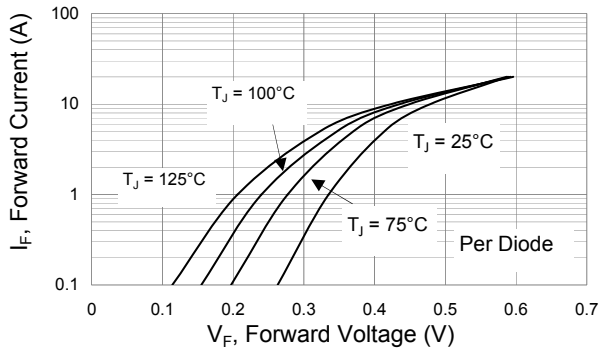
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage	$V_{BR}$	$I_R=1\text{mA}$	47	-	-	V
Instantaneous forward voltage per diode <sup>(1)</sup>	$V_F$	$I_F=2.5\text{A}$ $I_F=5\text{A}$	-	0.38 0.41	-	V
		$I_F=2.5\text{A}$ $I_F=5\text{A}$	-	0.27 0.32	-	V
Reverse current per diode <sup>(2)</sup>	$I_R$	$V_R=40\text{V}$	-	185 -	500 30	$\mu\text{A}$ mA

Note.1.Pulse test : 300 $\mu\text{s}$  pulse width, 1% duty cycle

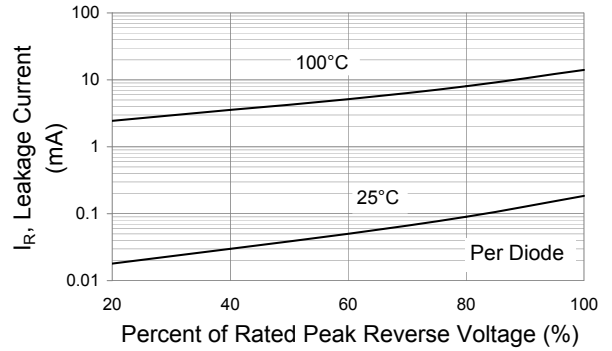
2Pulse test : pulse width  $\leq$  40ms



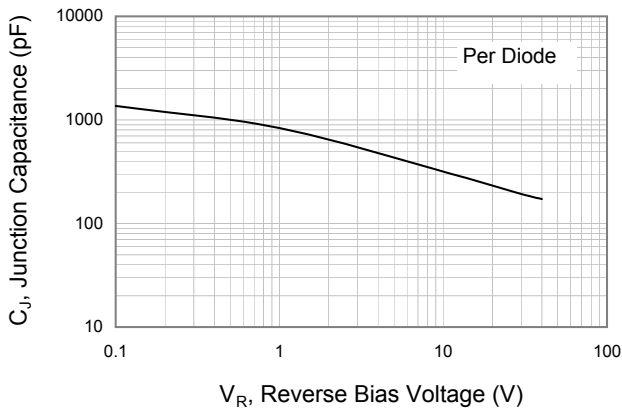
# SB1040LCT



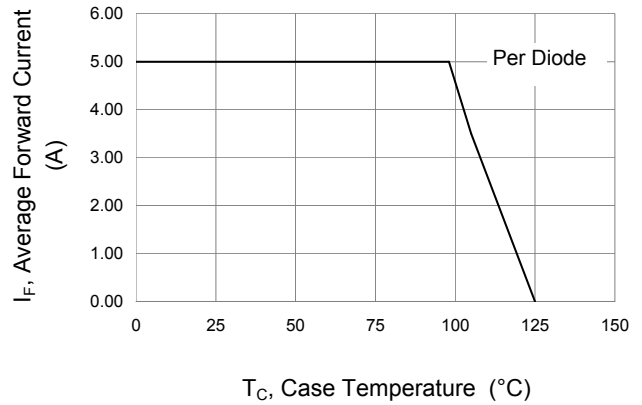
**Fig.1 Typical Forward Characteristics**



**Fig.2 Typical Reverse Characteristics**



**Fig.3 Typical Junction Capacitance**



**Fig.4 Forward Current Derating Curve**



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## Part No\_packing code\_Version

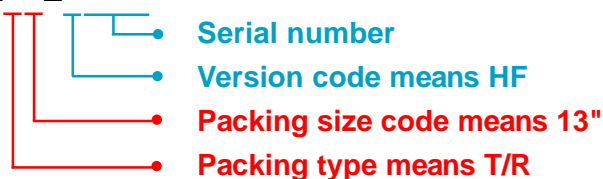
SB1040LCT\_T0\_00001

SB1040LCT\_T0\_10001

For example :

**RB500V-40\_R2\_00001**

Part No.



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)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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