



# SB30100LCT

## DUAL HIGH-VOLTAGE SCHOTTKY RECTIFIER

**VOLTAGE** 100 Volts **CURRENT** 30 Amperes

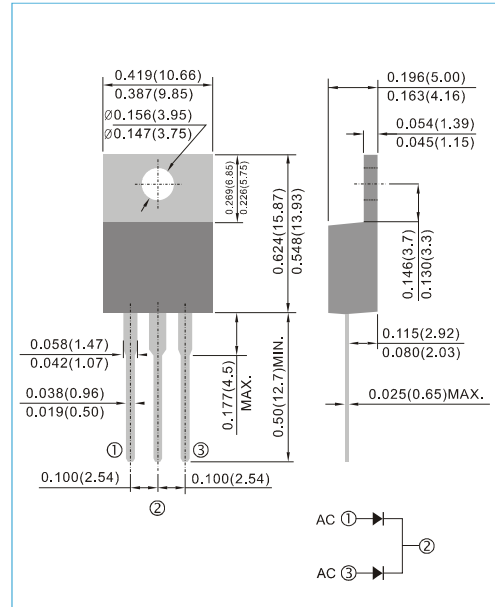
**TO-220AB** Unit : inch(mm)

### FEATURES

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

### MECHANICAL DATA

- Case : TO-220AB, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Weight: 0.0655 ounces, 1.859 grams



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

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	100	V
Maximum average forward rectified current (Fig.1)	$I_{F(AV)}$	30 15	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode	$I_{FSM}$	275	A
Non-repetitive avalanche energy at $T_j=25^{\circ}\text{C}$ , $L=60\text{mH}$ per diode	$E_{AS}$	300	mJ
Typical Thermal Resistance	$R_{\theta JC}$	2.5	$^{\circ}\text{C} / \text{W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-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 per diode	$V_{BR}$	$I_R=1.0\text{mA}$	103	120	-	V
Instantaneous forward voltage per diode <sup>(1)</sup>	$V_F$	$I_F=5\text{A}$	-	0.52	-	V
		$I_F=7.5\text{A}$	-	0.58	-	V
		$I_F=15\text{A}$	-	0.72	0.80	V
		$T_A=125^{\circ}\text{C}$	-	0.46	-	V
Reverse current per diode <sup>(2)</sup>	$I_R$	$V_R=70\text{V}$	-	10	-	$\mu\text{A}$
		$T_A=25^{\circ}\text{C}$	-	-	500	$\mu\text{A}$
		$T_A=125^{\circ}\text{C}$	-	-	32	$\text{mA}$

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

2. Pulse test : Pulse width < 40ms



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

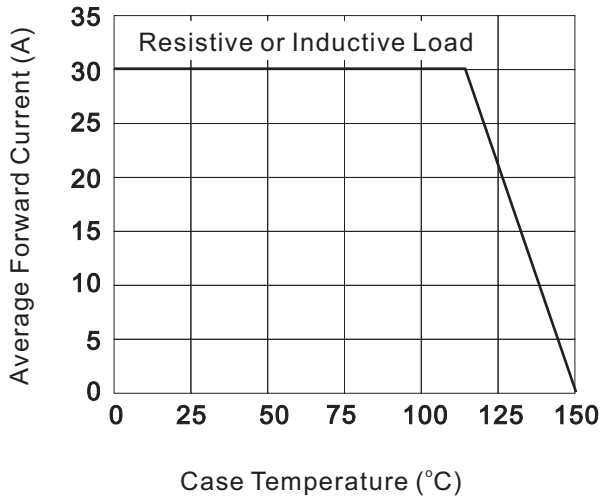


Figure 1. Forward Current Derating Curve

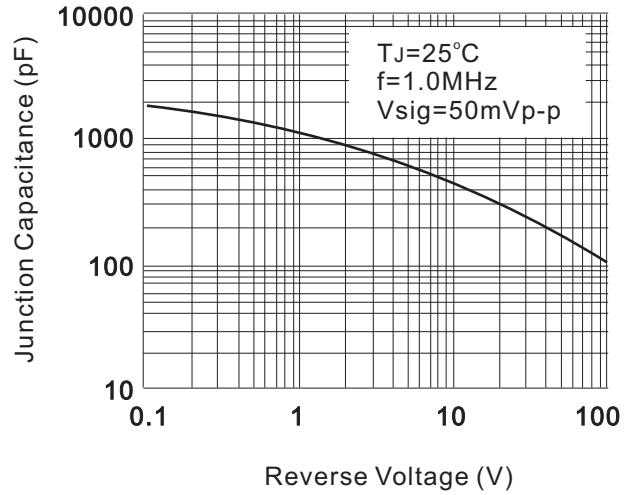


Figure 2. Typical Junction Capacitance

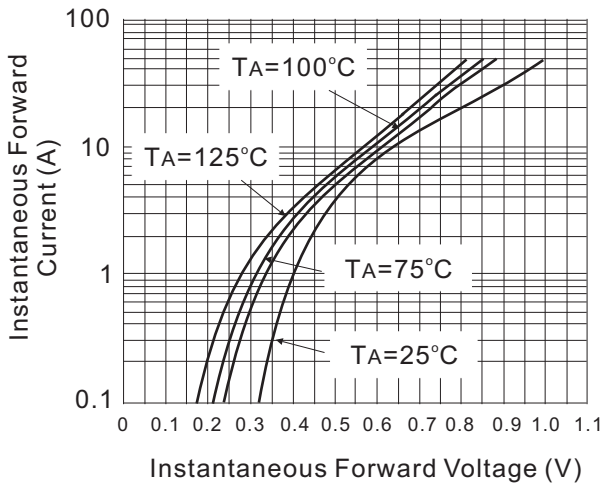


Figure 3. Typical Instantaneous Forward Characteristics Per Diode

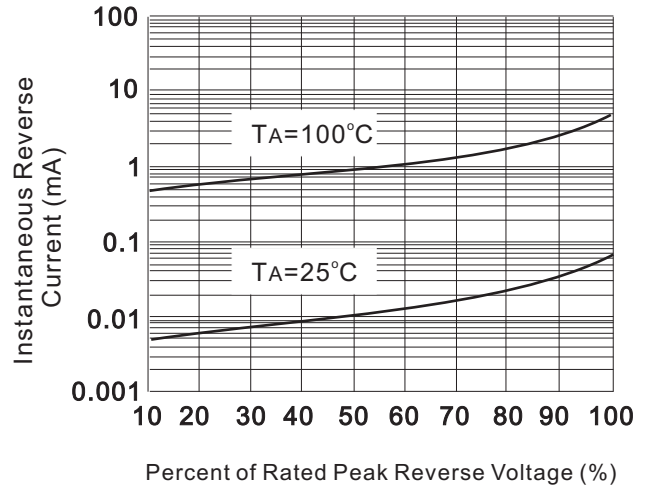


Figure 4. Typical Reverse Characteristics Per Diode



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## Part No\_packing code\_Version

SB30100LCT\_T0\_00001  
 SB30100LCT\_00001  
 SB30100LCT\_T0\_10001  
 SB30100LCT\_10001

For example :

**RB500V-40\_R2\_00001**



Packing Code XX				Version Code XXXXX		
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)	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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