



# SB3045LCT

## DUAL LOW VF SCHOTTKY RECTIFIER

**VOLTAGE** 45 Volts **CURRENT** 30 Amperes

### FEATURES

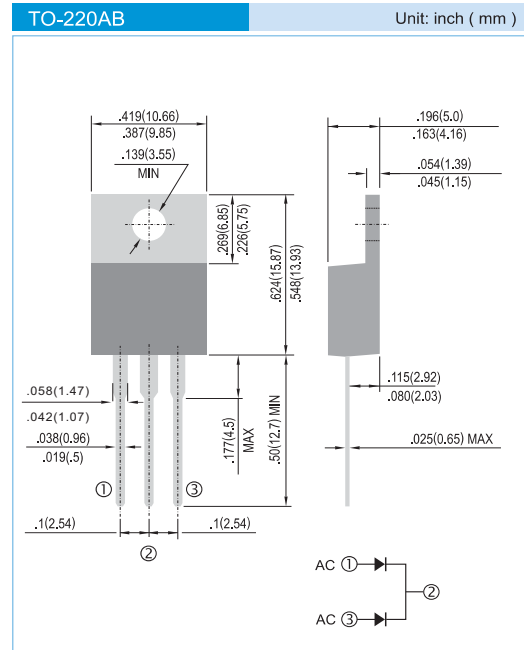
- Low forward voltage drop, low power losses
- High efficiency operation
- In compliance with EU RoHS 2002/95/EC directives

### 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	$V_{RRM}$	45	V
Maximum average forward rectified current	$I_{F(AV)}$	30 15	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode	$I_{FSM}$	250	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	$V_{BR}$	$I_R=1\text{mA}$	45	-	-	V
Instantaneous forward voltage per diode <sup>(1)</sup>	$V_F$	$I_F=15\text{A}$ $I_F=30\text{A}$	-	-	0.53 0.72	V
		$I_F=15\text{A}$ $I_F=30\text{A}$	-	0.42 0.59	0.50 0.67	V
Reverse current per diode <sup>(2)</sup>	$I_R$	$V_R=60\text{V}$	-	-	0.4 200	mA

Note : 1. Pulse test :  $t_p \leq 380\mu\text{s}$ ,  $\delta < 2\%$

2. Pulse test : Pulse width  $\leq 2.5\text{ms}$



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

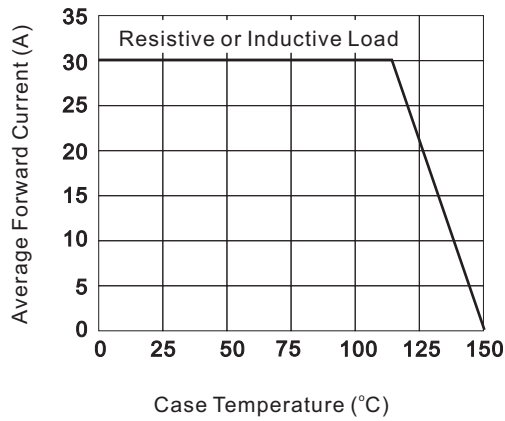


Figure 1. Forward Current Derating Curve

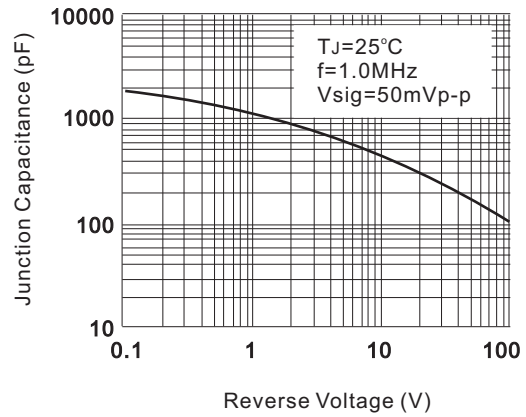


Figure 2. Typical Junction Capacitance

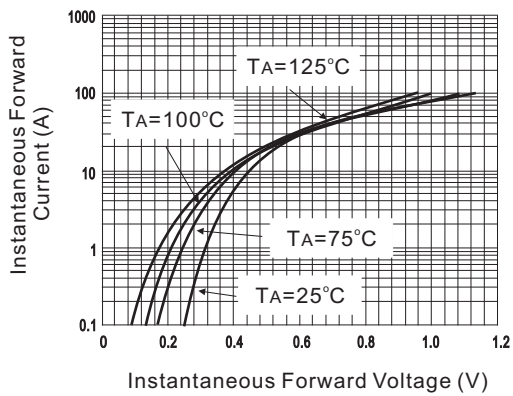


Figure 3. Typical Instantaneous Forward Characteristics Per Diode

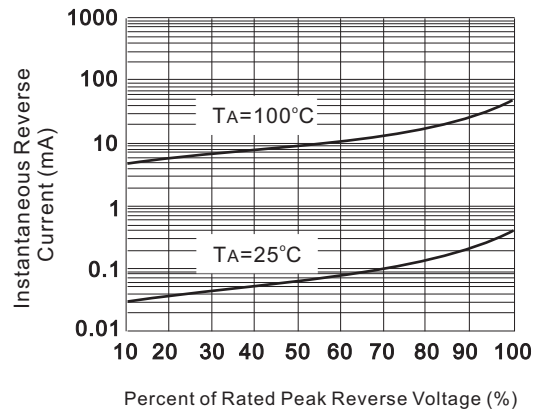


Figure 4. Typical Reverse Characteristics Per Diode