

SB1045LCT

Unit: inch (mm)

DUAL LOW VF SCHOTTKY RECTIFIER

VOLTAGE	45 Volts	CURRENT	10 Amperes
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FEATURES

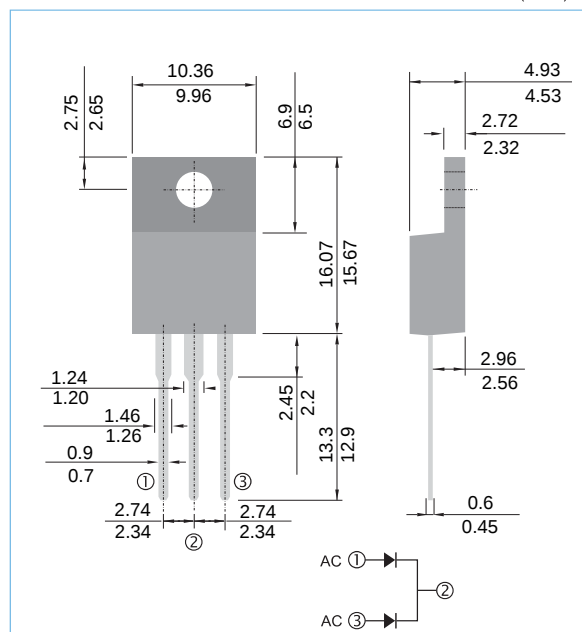
- Low forward voltage drop, low power losses
- High efficiency operation
- In compliance with EU RoHS 2002/95/EC directives

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 (Fig.3)	$I_{F(AV)}$	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	$^{\circ}\text{C/W}$
Operating junction	T_J	-55 to + 125	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-55 to + 125	$^{\circ}\text{C}$

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage	V_{BR}	$I_R=1\text{mA}$	50	-	-	V
Instantaneous forward voltage per diode ⁽¹⁾	V_F	$I_F=5\text{A}$ $T_J=25^{\circ}\text{C}$	-	0.38	0.42	V
		$I_F=10\text{A}$ $T_J=25^{\circ}\text{C}$	-	0.35	0.40	V
Reverse current per diode ⁽²⁾	I_R	$V_R=45\text{V}$ $T_J=25^{\circ}\text{C}$ $T_J=100^{\circ}\text{C}$	- -	100 -	500 10	μA mA

Note.1 Pulse test : 380 μs pulse width, 1% duty cycle2. Pulse test : Pulse width $\leq 2.5\text{ms}$

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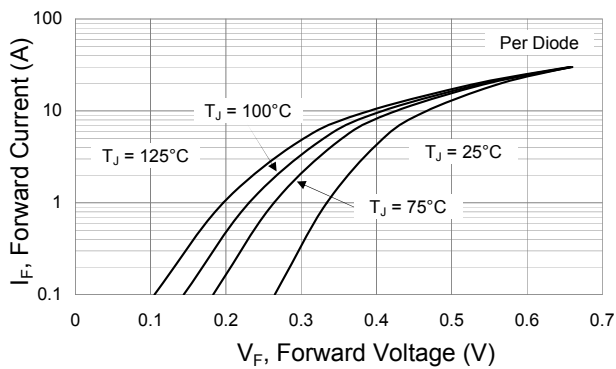


Fig.1 Typical Forward Characteristics

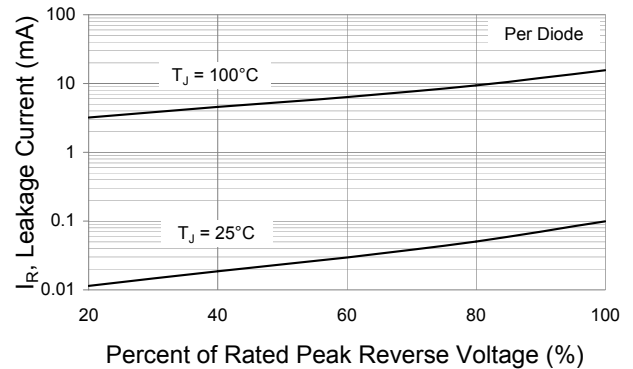


Fig.2 Typical Reverse Characteristics

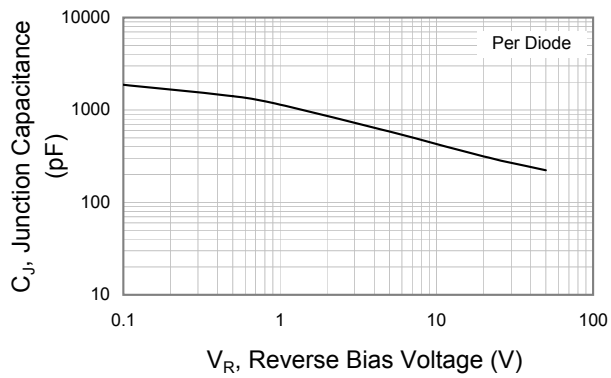


Fig.3 Typical Junction Capacitance

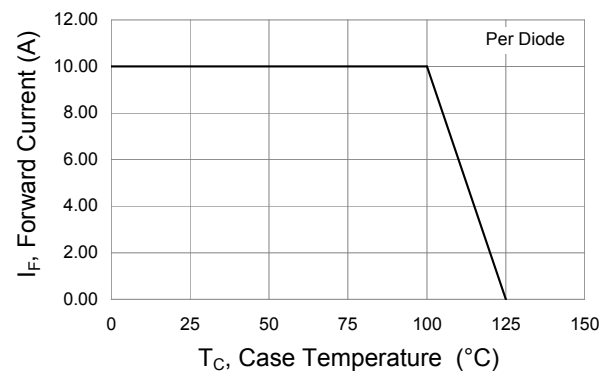


Fig.4 Forward Current Derating Curve