



SB2045LCT

LOW VF SCHOTTKY RECTIFIER

VOLTAGE 45 Volts **CURRENT** 20 Amperes

TO-220AB

Unit: inch (mm)

FEATURES

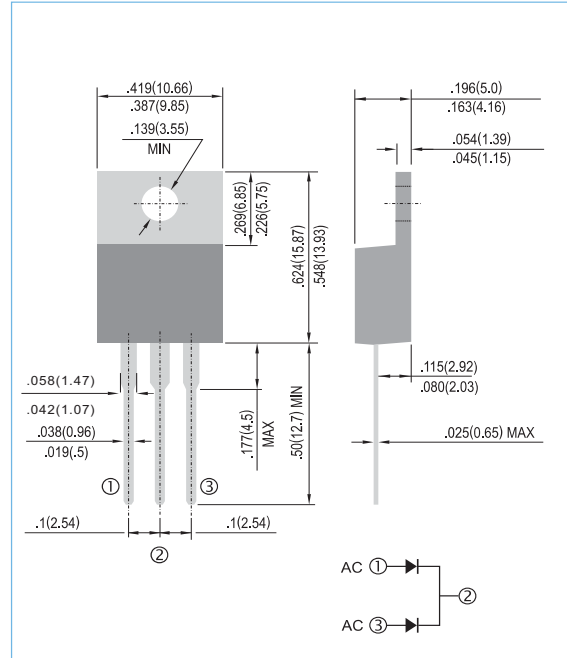
- Low forward voltage drop, low power losses
- High efficiency operation
- In compliance with EU RoHS 2002/95/EC directives

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	$I_{F(AV)}$	20 10	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode	I_{FSM}	145	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}	$I_R=1\text{mA}$	50	-	-	V
Instantaneous forward voltage per diode ⁽¹⁾	V_F	$I_F=5\text{A}$ $I_F=10\text{A}$ $T_J=25^{\circ}\text{C}$	-	0.42 0.46	0.46 0.52	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 -	500 100	μA mA

Note.1.Pulse test : 300 μs pulse width, 1% duty cycle

2Pulse test : pulse width \leq 40ms



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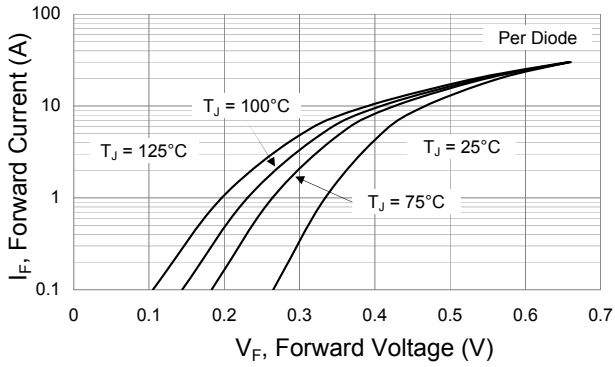


Fig.1 Typical Forward Characteristics

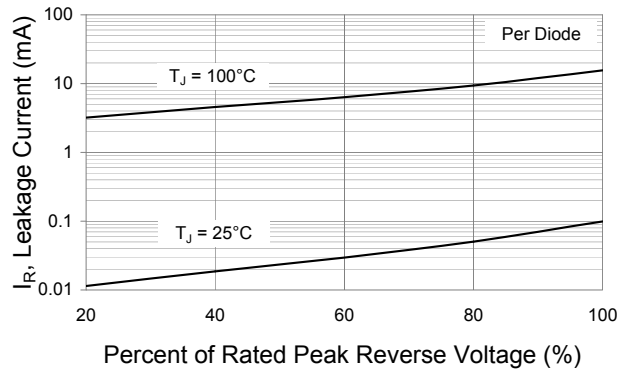


Fig.2 Typical Reverse Characteristics

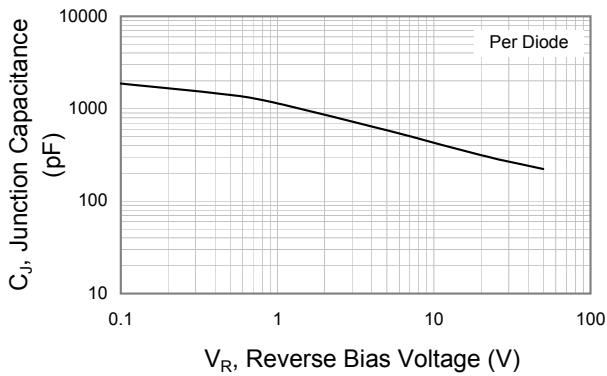


Fig.3 Typical Junction Capacitance

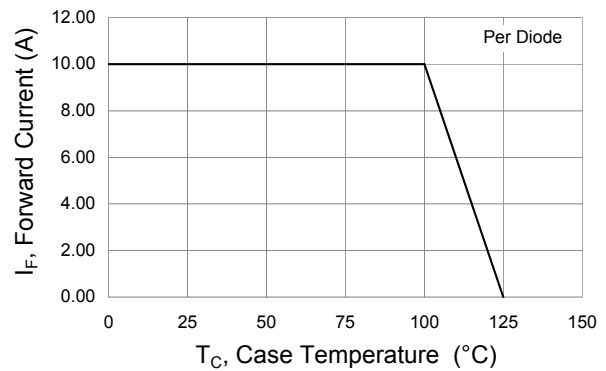


Fig.4 Forward Current Derating Curve