



# SB4045LCT

## DUAL LOW VF SCHOTTKY RECTIFIER

**VOLTAGE** 45 Volts **CURRENT** 40 Amperes

### FEATURES

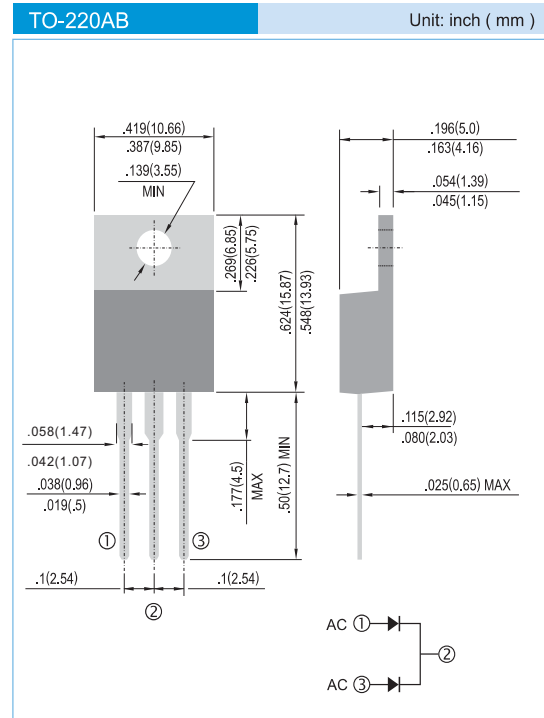
- Low forward voltage drop, low power losses
- High efficiency operation
- In compliance with EU RoHS 2002/95/EC directives

### 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 (Fig.1)	$I_{F(AV)}$	40 20	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	$V_{BR}$	$I_R=1\text{mA}$	49	-	-	V
Instantaneous forward voltage per diode <sup>(1)</sup>	$V_F$	$I_F=10\text{A}$ $T_J=25^{\circ}\text{C}$	-	0.44	0.48	V
		$I_F=20\text{A}$ $T_J=25^{\circ}\text{C}$	-	0.51	0.53	V
Reverse current per diode <sup>(2)</sup>	$I_R$	$V_R=45\text{V}$ $T_J=25^{\circ}\text{C}$	-	-	500	$\mu\text{A}$
		$V_R=45\text{V}$ $T_J=100^{\circ}\text{C}$	-	-	100	$\text{mA}$

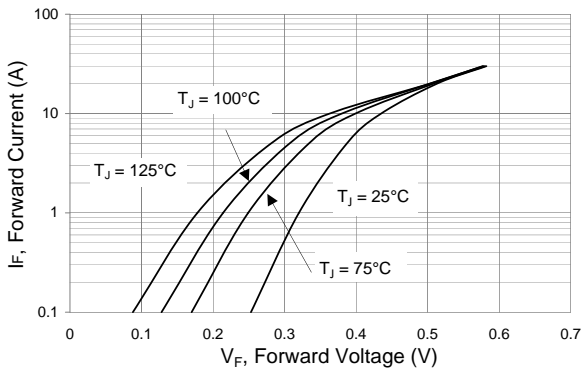
Note.1.Pulse test : 300 $\mu\text{s}$  pulse width, 1% duty cycle

2.Pulse test : pulse width  $\leq 40\text{ms}$

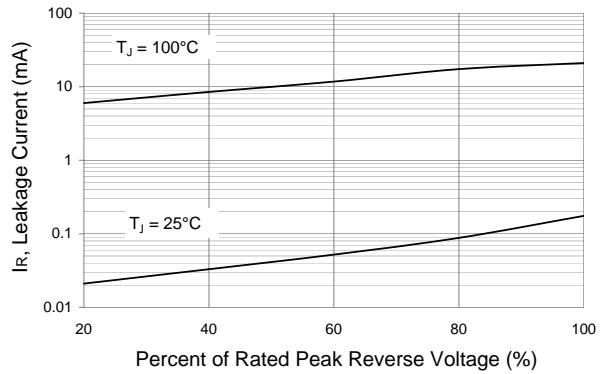
PAN JIT RESERVES THE RIGHT TO IMPROVE PRODUCT DESIGN, FUNCTIONS AND RELIABILITY WITHOUT NOTICE



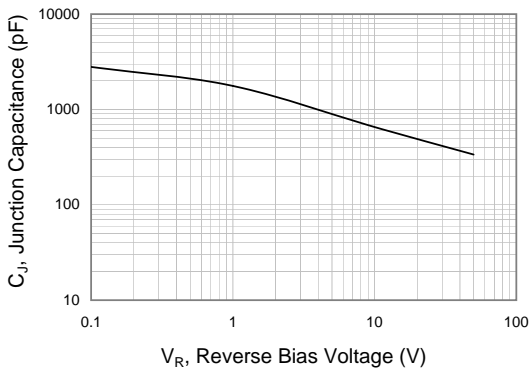
# SB4045LCT



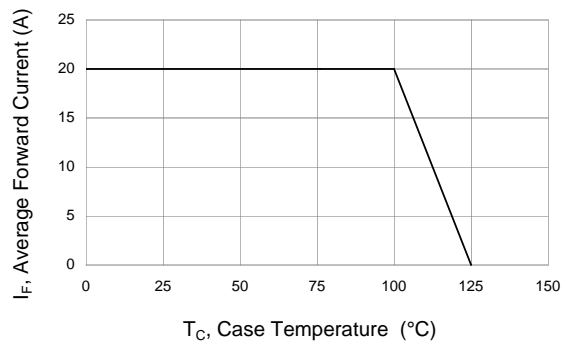
**Fig.1 Typical Forward Characteristics Per Diode**



**Fig.2 Typical Reverse Characteristics Per Diode**



**Fig.3 Typical Junction Capacitance Per Diode**



**Fig.4 Forward Current Derating Curve Per Diode**