



SB1040LCT

DUAL LOW VF SCHOTTKY RECTIFIER

VOLTAGE 40 Volts **CURRENT** 10 Amperes

FEATURES

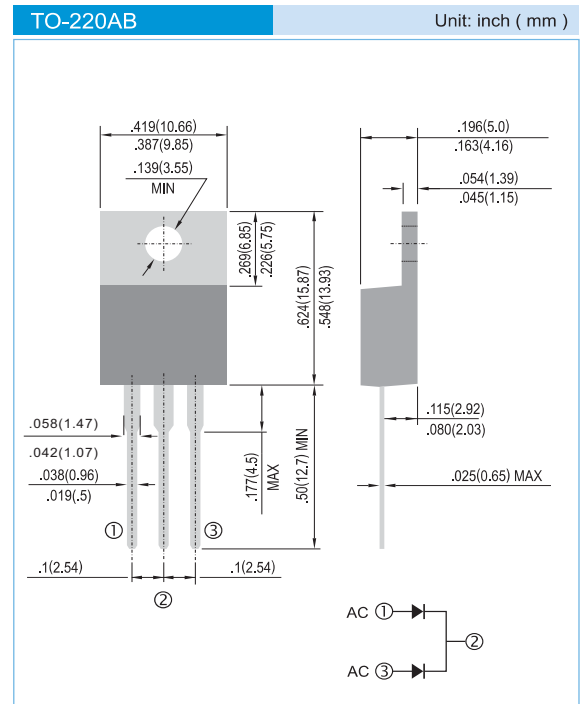
- Low forward voltage drop, low power losses
- High efficiency operation
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

Case : TO-220AB, Plastic

Terminals : Solderable per MIL-STD-750, Method 2026

Weight: 0.065 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}	40	V
Maximum average forward rectified current (Fig.1) per device per diode	$I_{F(AV)}$	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	$^\circ\text{C} / \text{W}$
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}	$I_R=1\text{mA}$	47	-	-	V
Instantaneous forward voltage per diode ⁽¹⁾	V_F	$I_F=2.5\text{A}$ $I_F=5\text{A}$ $T_J=25^\circ\text{C}$	-	0.38 0.41	- 0.44	V
		$I_F=2.5\text{A}$ $I_F=5\text{A}$ $T_J=125^\circ\text{C}$	-	0.27 0.32	- 0.35	V
Reverse current per diode ⁽²⁾	I_R	$V_R=40\text{V}$ $T_J=25^\circ\text{C}$	-	185	500	μA
		$T_J=100^\circ\text{C}$	-	-	30	mA

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

2.Pulse test : pulse width \leq 40ms



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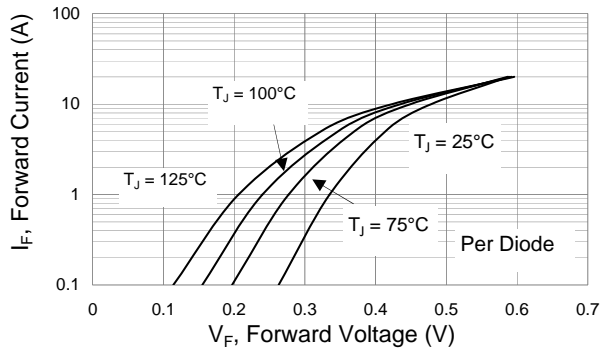


Fig.1 Typical Forward Characteristics

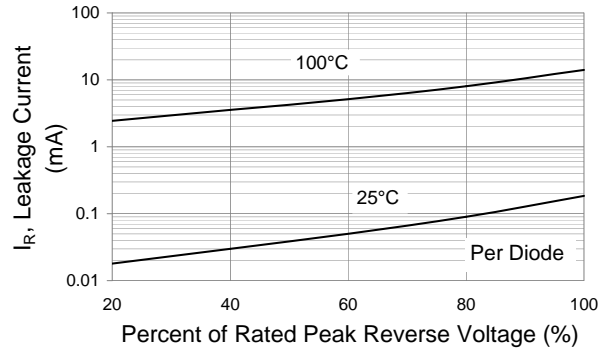


Fig.2 Typical Reverse Characteristics

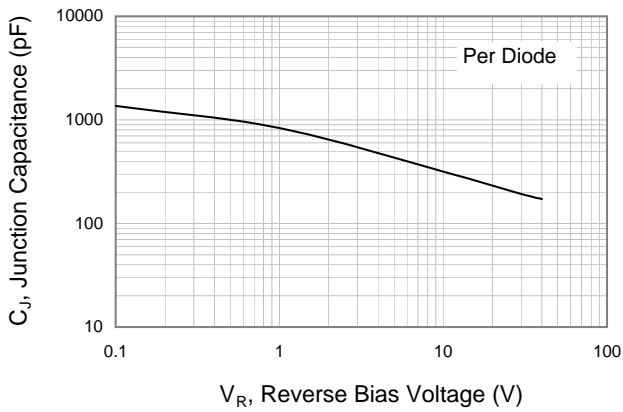


Fig.3 Typical Junction Capacitance

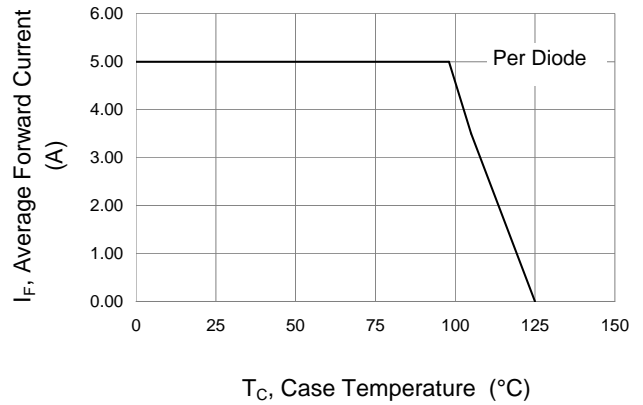


Fig.4 Forward Current Derating Curve