



SB10100LCT

DUAL HIGH-VOLTAGE SCHOTTKY RECTIFIER

TO-220AB

Unit: inch (mm)

VOLTAGE 100 Volts **CURRENT** 10 Amperes

FEATURES

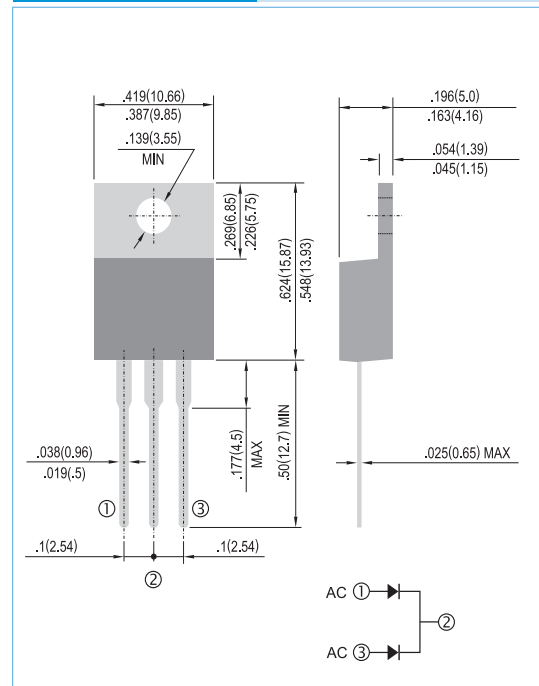
- Low forward voltage drop, low power losses
- High efficiency operation
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

Case : TO-220AB, Plastic

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

Weight: 0.0655 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}	100	V
Maximum average forward rectified current (Fig.1)	$I_{F(AV)}$	10 5	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode	I_{FSM}	125	A
Non-repetitive avalanche energy at $T_J=25^{\circ}\text{C}$, $L=60\text{mH}$ Per diode	E_{AS}	50	mJ
Typical thermal resistance	$R_{\theta JC}$	3	$^{\circ}\text{C} / \text{W}$
Operating junction and storage temperature range	T_J, 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}	$I_R=1\text{mA}$	103	120	-	V
Instantaneous forward voltage per diode ⁽¹⁾	V_F	$I_F=1\text{A}$ $T_A=25^{\circ}\text{C}$	-	0.45	0.5	V
		$I_F=5\text{A}$ $T_A=25^{\circ}\text{C}$	-	0.79	-	V
Reverse current per diode ⁽²⁾	I_R	$V_R=70\text{V}$ $T_A=25^{\circ}\text{C}$	-	8	-	μA
		$V_R=100\text{V}$ $T_A=125^{\circ}\text{C}$	-	16	100	μA 30 mA

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

2.Pulse test used to minimize Self-Heating Effect

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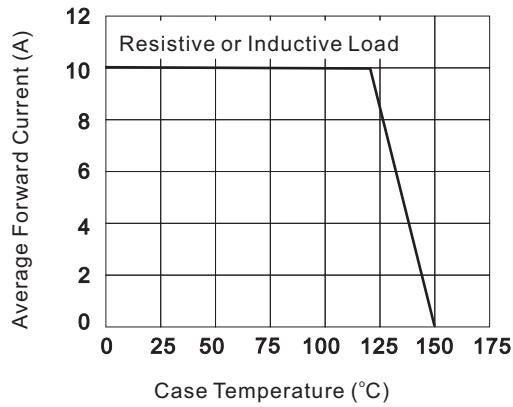


Figure 1. Forward Current Derating Curve

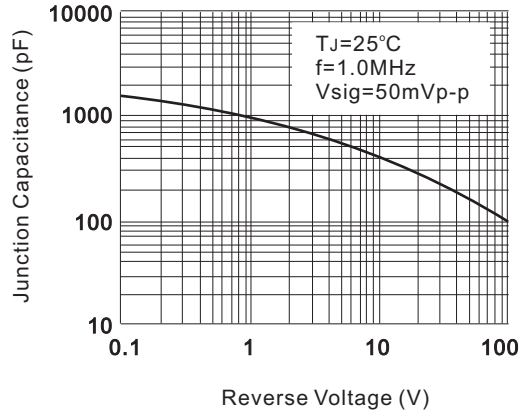


Figure 2. Typical Junction Capacitance

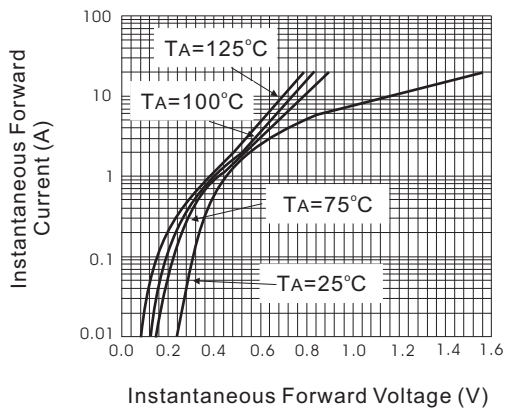


Figure 3. Typical Instantaneous Forward Characteristics Per Diode

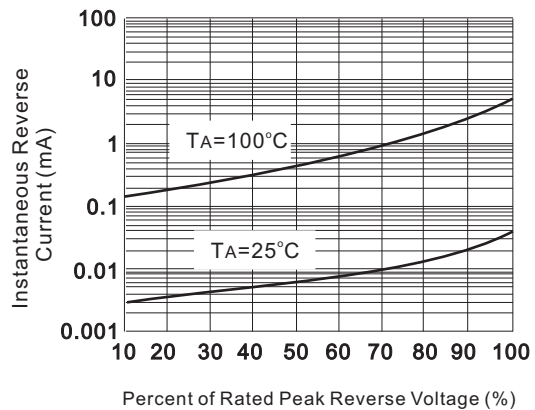


Figure 4. Typical Reverse Characteristics Per Diode