



# SB1040LFCT

## DUAL LOW VF SCHOTTKY RECTIFIER

**VOLTAGE** 40 Volts **CURRENT** 10 Amperes

### FEATURES

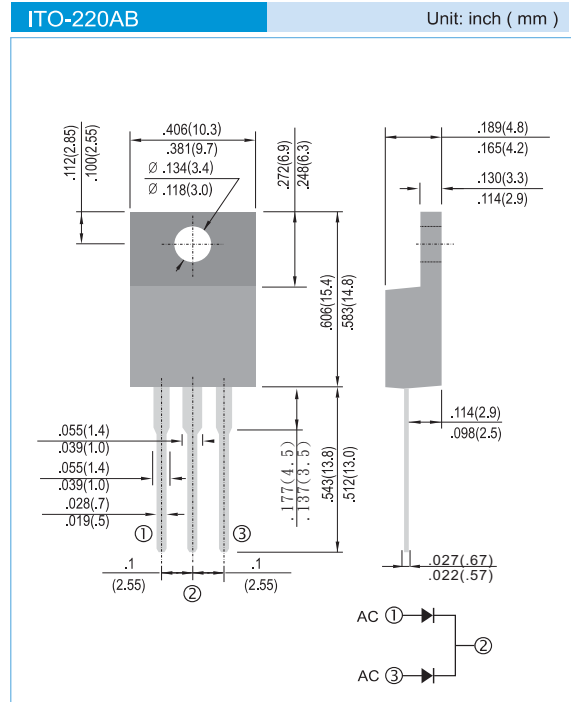
- Low forward voltage drop, low power losses
- High efficiency operation
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

Case : ITO-220AB, Plastic

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

Weight: 0.055 ounces, 1.5615 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)	$I_{F(AV)}$	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	$R_{\theta JC}$	4.5	$^{\circ}\text{C} / \text{W}$
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)

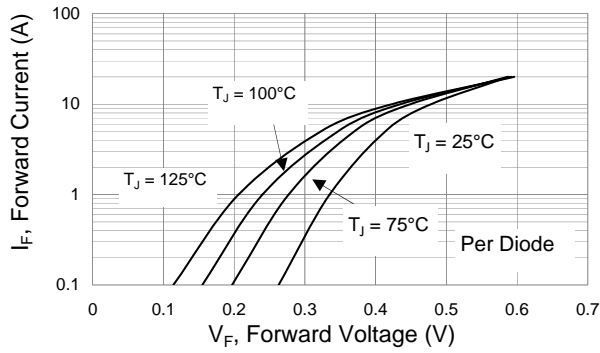
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage	$V_{BR}$	$I_R=1\text{mA}$	47	-	-	V
Instantaneous forward voltage per diode <sup>(1)</sup>	$V_F$	$I_F=2.5\text{A}$ $I_F=5\text{A}$	-	0.38 0.41	-	V
		$I_F=2.5\text{A}$ $I_F=5\text{A}$	-	0.27 0.32	-	V
Reverse current per diode <sup>(2)</sup>	$I_R$	$V_R=40\text{V}$	-	185 -	500 30	$\mu\text{A}$ mA

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

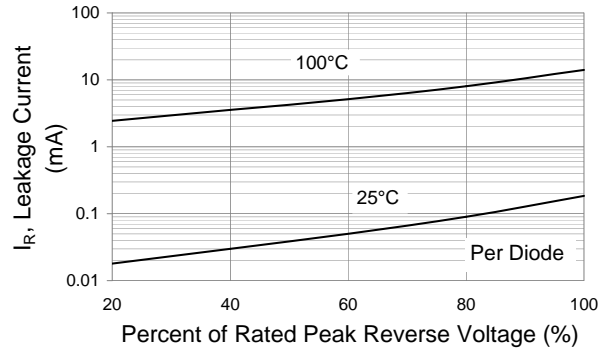
2.Pulse test : pulse width  $\leq 40\text{ms}$



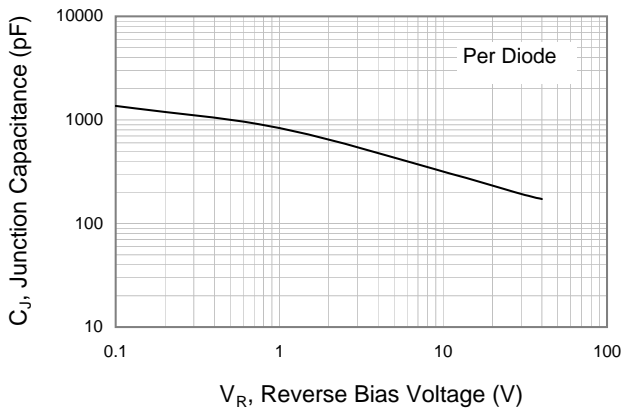
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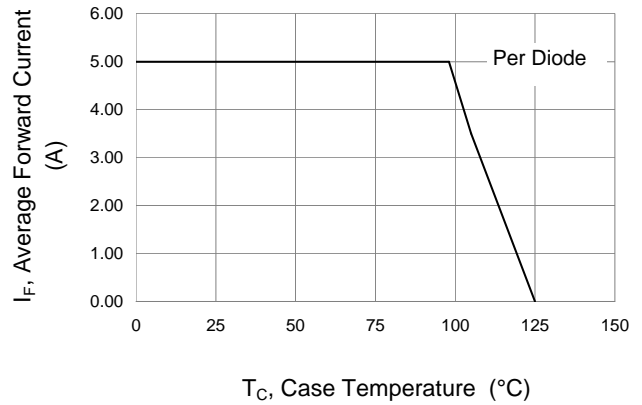
**Fig.1 Typical Forward Characteristics**



**Fig.2 Typical Reverse Characteristics**



**Fig.3 Typical Junction Capacitance**



**Fig.4 Forward Current Derating Curve**