



SBT30100UFCT

ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

Voltage

100 V

Current

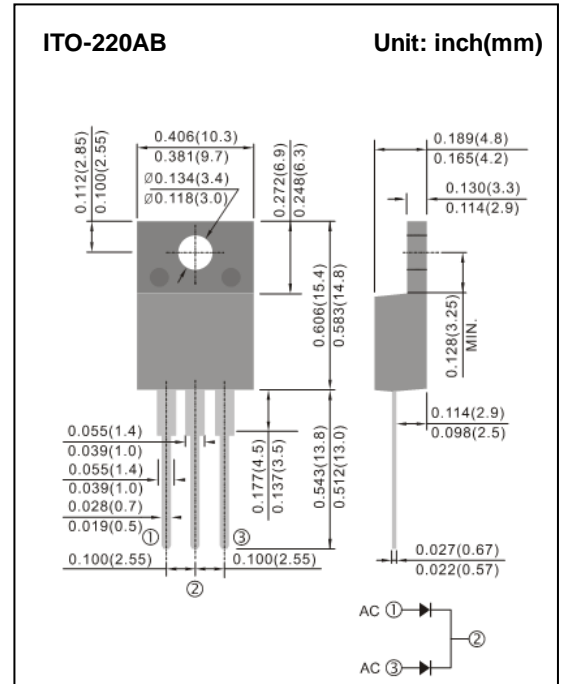
30 A

Features

- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std.. (Halogen Free)

Mechanical Data

- Case: Molded plastic, ITO-220AB
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.056 ounces, 1.6 grams



Maximum Ratings And Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER		SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage		V_{RRM}	100	V
Maximum rms voltage		V_{RMS}	70	V
Maximum dc blocking voltage		V_R	100	V
Maximum average forward rectified current	per device	$I_{F(AV)}$	30	A
	per diode		15	
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	250	A
Typical thermal resistance (Note 1)		$R_{\theta JC}$	5.5	$^\circ\text{C/W}$
Operating junction temperature range		T_J	-55 to +150	$^\circ\text{C}$
Storage temperature range		T_{STG}	-55 to +150	$^\circ\text{C}$

Note : 1. Device mounted on a infinite heatsink , then measured the center of the marking side.



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Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Breakdown voltage	V_{BR}	$I_R=0.5\text{mA}$	$T_J=25^{\circ}\text{C}$	100	-	-	V
Instantaneous forward voltage	V_F	$I_F=5\text{A}$	$T_J=25^{\circ}\text{C}$	-	0.48	-	V
		$I_F=10\text{A}$		-	0.57	-	
		$I_F=15\text{A}$		-	0.66	0.71	
		$I_F=5\text{A}$	$T_J=125^{\circ}\text{C}$	-	0.41	-	V
$I_F=10\text{A}$	-	0.53		-			
Reverse current	I_R	$V_R=70\text{V}$	$T_J=25^{\circ}\text{C}$	-	5	-	μA
			$T_J=125^{\circ}\text{C}$	-	6	-	mA
		$V_R=100\text{V}$	$T_J=25^{\circ}\text{C}$	-	-	120	μA
			$T_J=125^{\circ}\text{C}$	-	12	-	mA



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TYPICAL CHARACTERISTIC CURVES

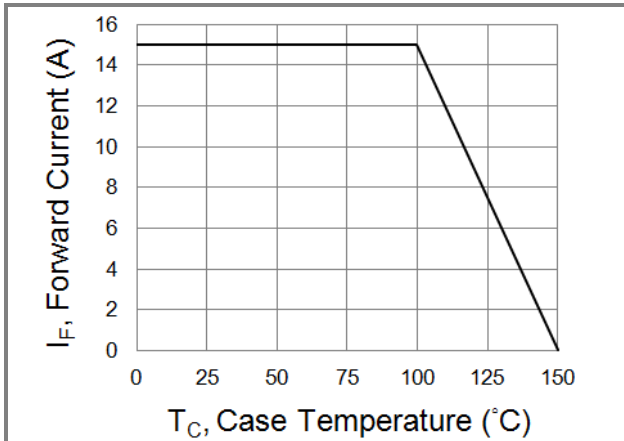


Fig.1 Forward Current Derating Curve

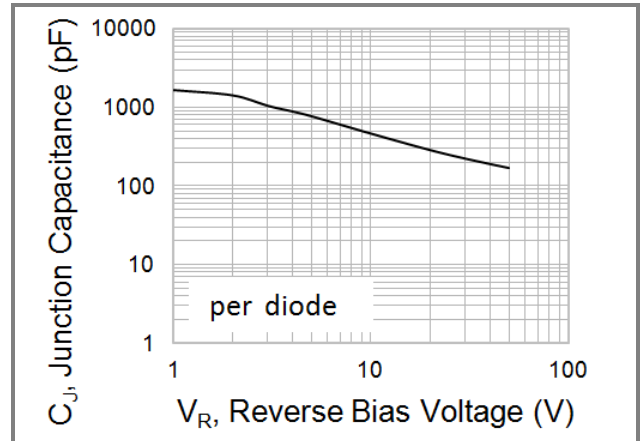


Fig.2 Typical Junction Capacitance

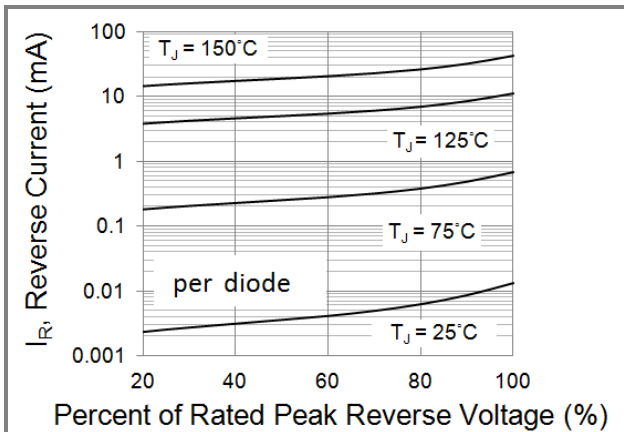


Fig.3 Typical Reverse Characteristics

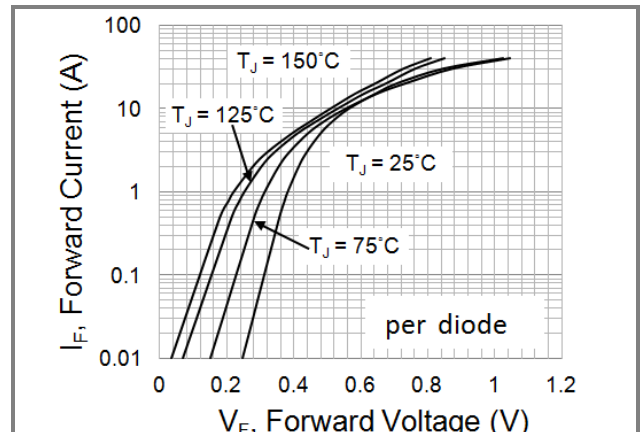


Fig.4 Typical Forward Characteristics

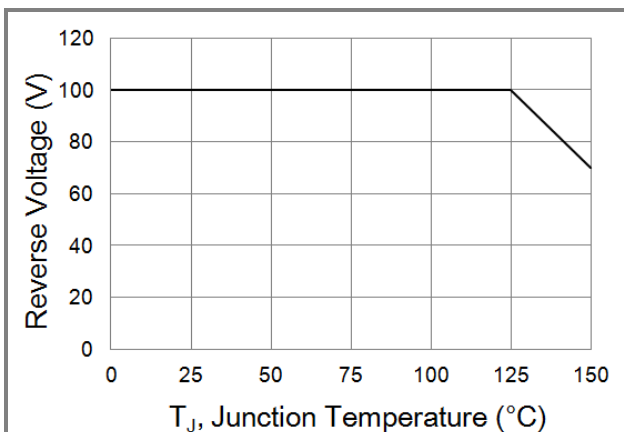


Fig.5 Operating Temperature Derating Curve



SBT30100UFCT

Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
SBT30100UFCT_T0_00001	ITO-220AB	50pcs / Tube	SBT30100UFCT	Halogen free



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