

SBT30100VFYT

ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

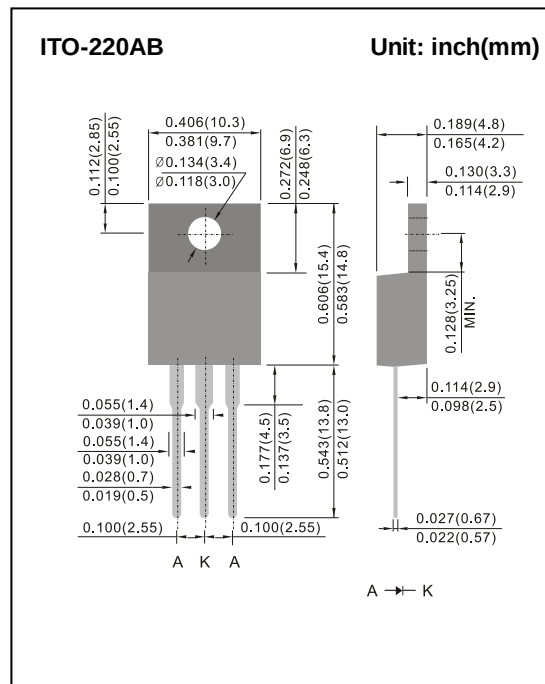
Voltage	100 V	Current	30 A
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Features

- 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	$I_{F(AV)}$	30	A
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. Mounted on infinite heatsink



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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	$I_F=5\text{A}$	$T_J=25^{\circ}\text{C}$	-	0.49	-	V
		$I_F=10\text{A}$		-	0.56	-	
		$I_F=30\text{A}$		-	-	0.86	
		$I_F=5\text{A}$	$T_J=125^{\circ}\text{C}$	-	0.43	-	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
		$V_R=100\text{V}$	$T_J=25^{\circ}\text{C}$	-	-	50	μA
			$T_J=125^{\circ}\text{C}$	-	7	-	mA

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TYPICAL CHARACTERISTIC CURVES

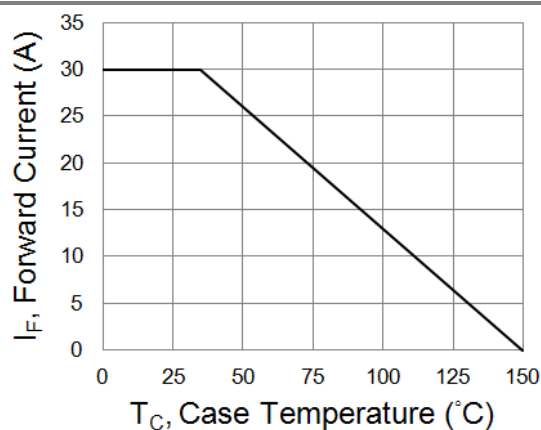


Fig.1 Forward Current Derating Curve

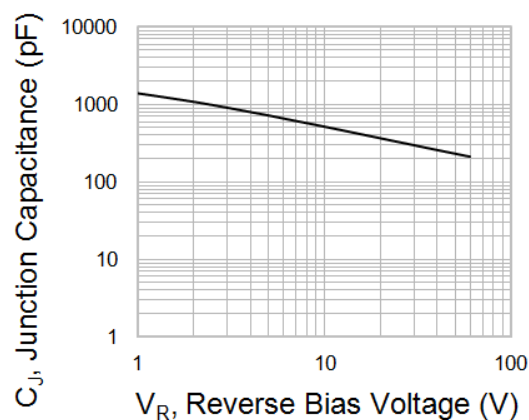


Fig.2 Typical Junction Capacitance

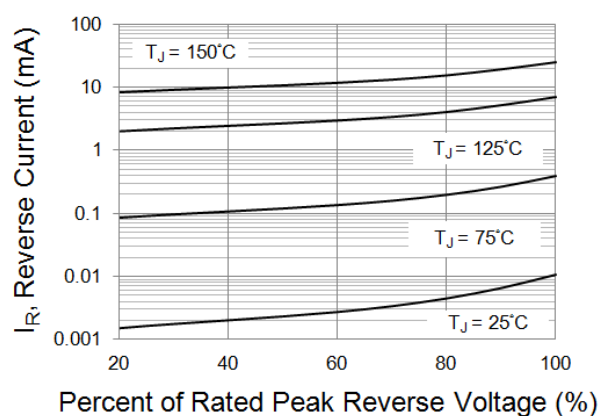


Fig.3 Typical Reverse Characteristics

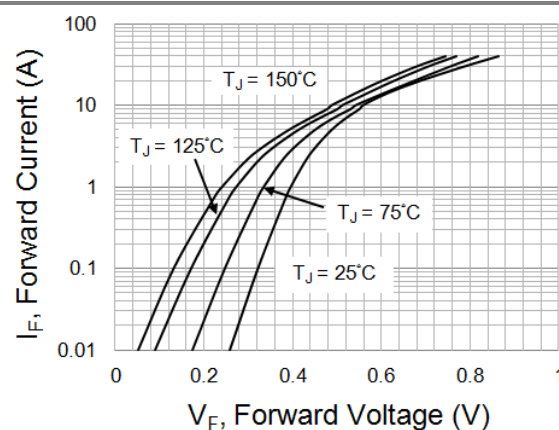


Fig.4 Typical Forward Characteristics

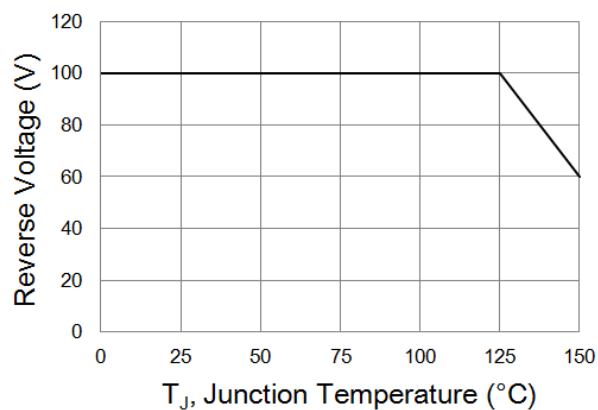


Fig.5 Operating Temperature Derating Curve



SBT30100VFYT

Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
SBT30100VFYT_T0_00001	ITO-220AB	50pcs / Tube	SBT30100VFYT	Halogen free



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