



SBT10100UYT

ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

Voltage

100 V

Current

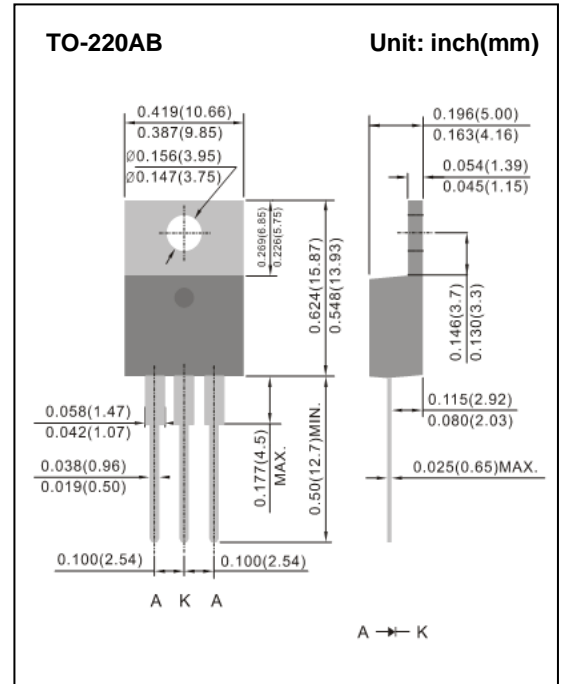
10 A

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, TO-220AB
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.067 ounces, 1.89 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	$I_{F(AV)}$	10	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150	A
Typical junction capacitance ($V_R=4V, f=1\text{MHz}$)	C_J	620	pF
Typical thermal resistance (Note 1)	$R_{\theta JC}$	3	$^\circ\text{C/W}$
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	$I_F=3\text{A}$	$T_J=25^{\circ}\text{C}$	-	0.47	-	V
		$I_F=5\text{A}$		-	0.53	-	
		$I_F=10\text{A}$		-	-	0.71	
		$I_F=3\text{A}$	$T_J=125^{\circ}\text{C}$	-	0.40	-	V
		$I_F=5\text{A}$		-	0.49	-	
		$I_F=10\text{A}$		-	0.61	-	
Reverse current	I_R	$V_R=70\text{V}$	$T_J=25^{\circ}\text{C}$	-	5	-	μA
		$V_R=100\text{V}$	$T_J=25^{\circ}\text{C}$	-	-	80	μA
			$T_J=125^{\circ}\text{C}$	-	7.2	-	mA



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TYPICAL CHARACTERISTIC CURVES

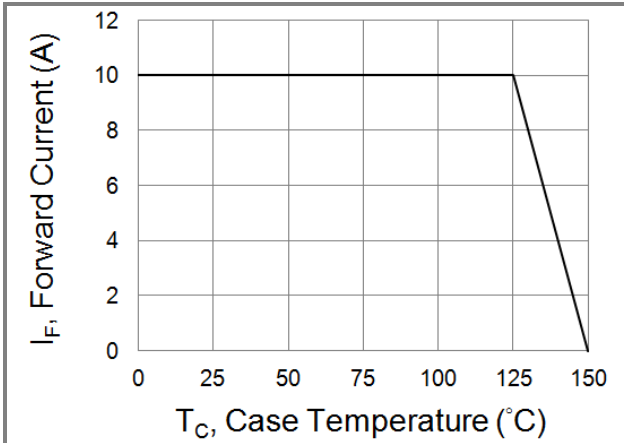


Fig.1 Forward Current Derating Curve

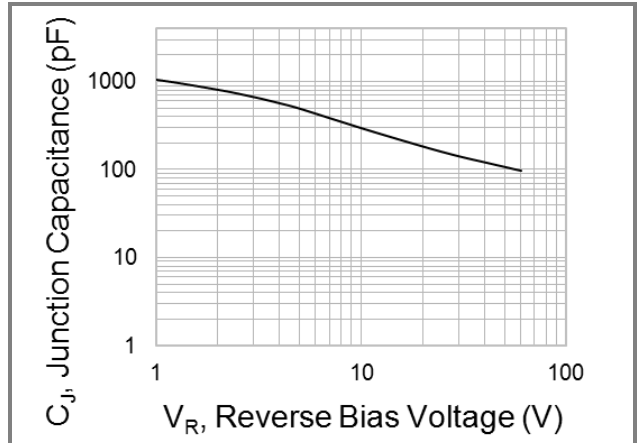


Fig.2 Typical Junction Capacitance

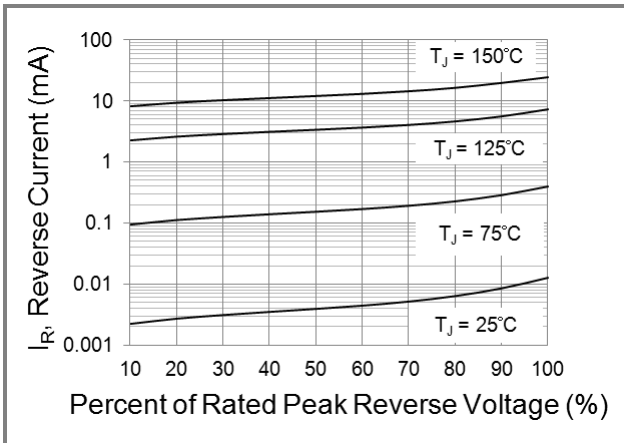


Fig.3 Typical Reverse Characteristics

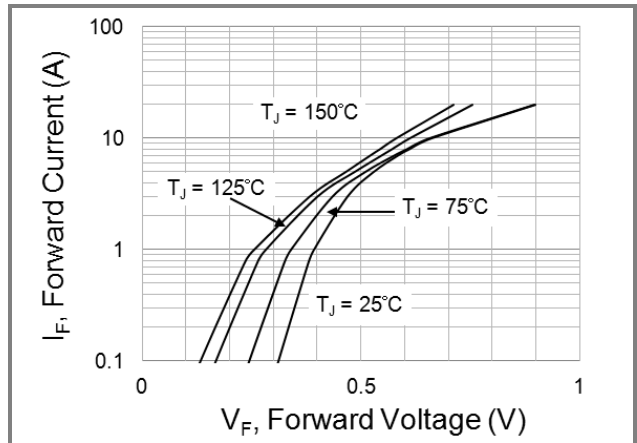


Fig.4 Typical Forward Characteristics

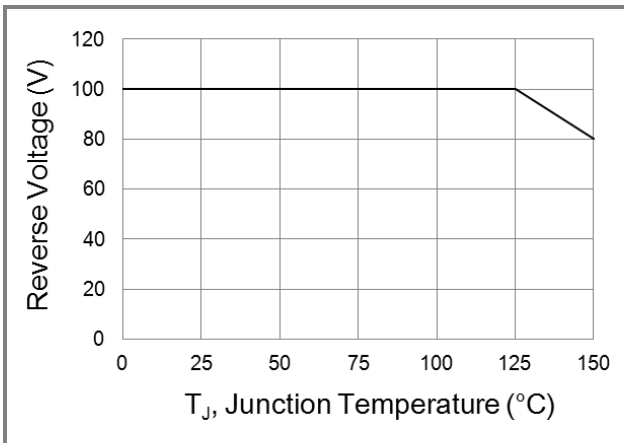


Fig.5 Operating Temperature Derating Curve



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Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
SBT10100UYT_TO_00001	TO-220AB	50pcs / Tube	SBT10100UYT	Halogen free



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