

SBT30100VYB

ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

Voltage

100 V

Current

30 A

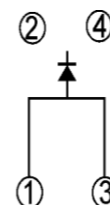
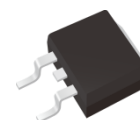
Features

- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Low power loss, high efficiency
- High surge current capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case: TO-263 Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.049 ounces, 1.38 grams

TO-263



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

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum Rms Voltage	V_{RMS}	70	V
Maximum Dc Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Current	$I_{F(AV)}$	30	A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I_{FSM}	250	A
Typical Thermal Resistance	$R_{\theta JC}^{(1)}$	2	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	-55~150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55~150	$^\circ\text{C}$



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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	$I_F = 5\text{ A}, T_J = 25^\circ\text{C}$	-	0.49	-	V
		$I_F = 10\text{ A}, T_J = 25^\circ\text{C}$	-	0.56	-	
		$I_F = 15\text{ A}, T_J = 25^\circ\text{C}$	-	-	0.71	
		$I_F = 30\text{ A}, T_J = 25^\circ\text{C}$	-	-	0.86	
		$I_F = 5\text{ A}, T_J = 125^\circ\text{C}$	-	0.43	-	
		$I_F = 10\text{ A}, T_J = 125^\circ\text{C}$	-	0.53	-	
Reverse Current	$I_R^{(2)}$	$V_R = 70\text{ V}, T_J = 25^\circ\text{C}$	-	5	-	uA
		$V_R = 100\text{ V}, T_J = 25^\circ\text{C}$	-	-	50	
		$V_R = 100\text{ V}, T_J = 125^\circ\text{C}$	-	7	-	mA

NOTES:

1. Mounted on infinite heatsink.
2. Short duration pulse test used to minimize self-heating effect.

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TYPICAL CHARACTERISTIC CURVES

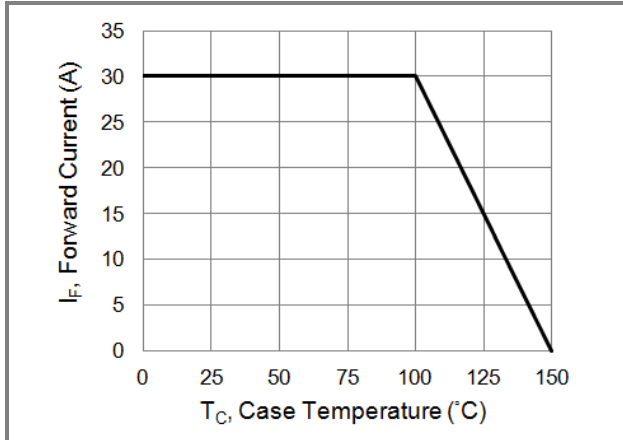


Fig.1 Forward Current Derating Curve

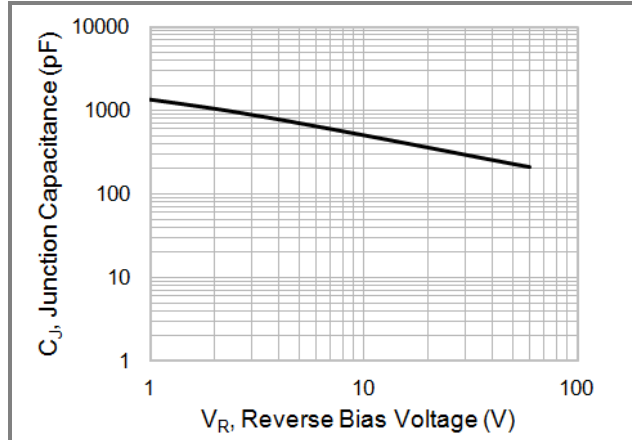


Fig.2 Typical Junction Capacitance

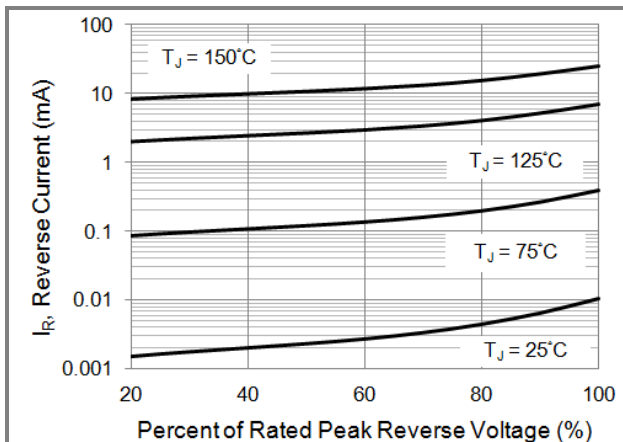


Fig.3 Typical Reverse Characteristics

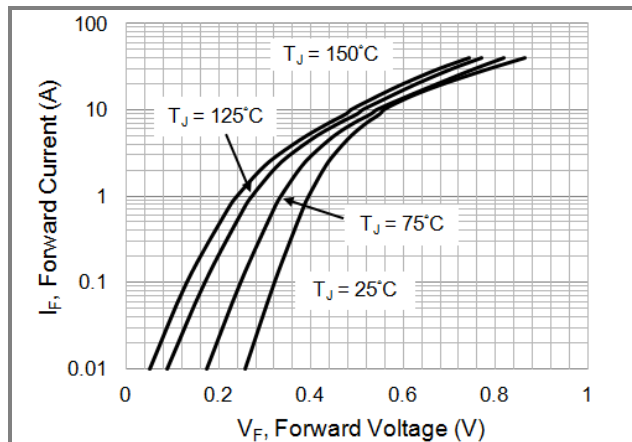


Fig.4 Typical Forward Characteristics

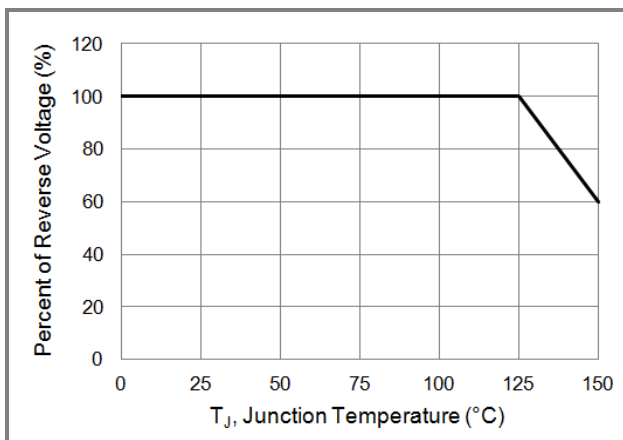


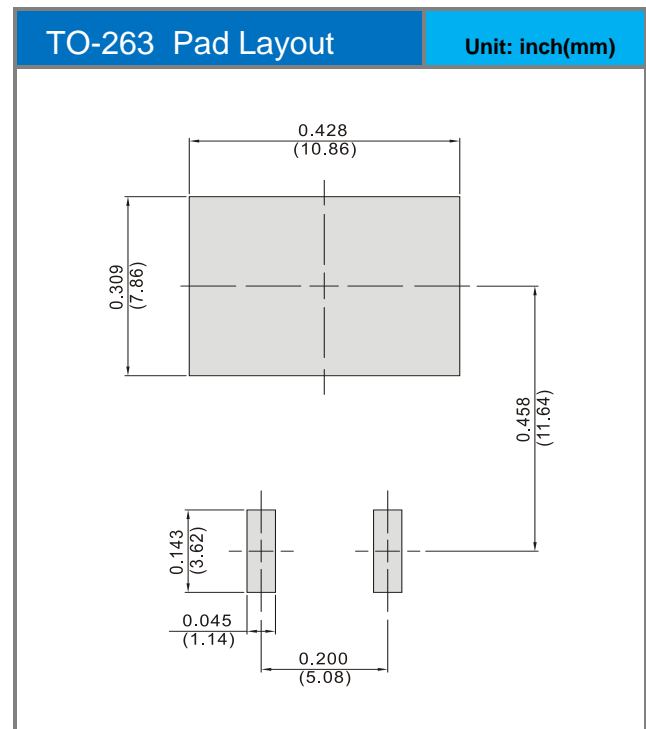
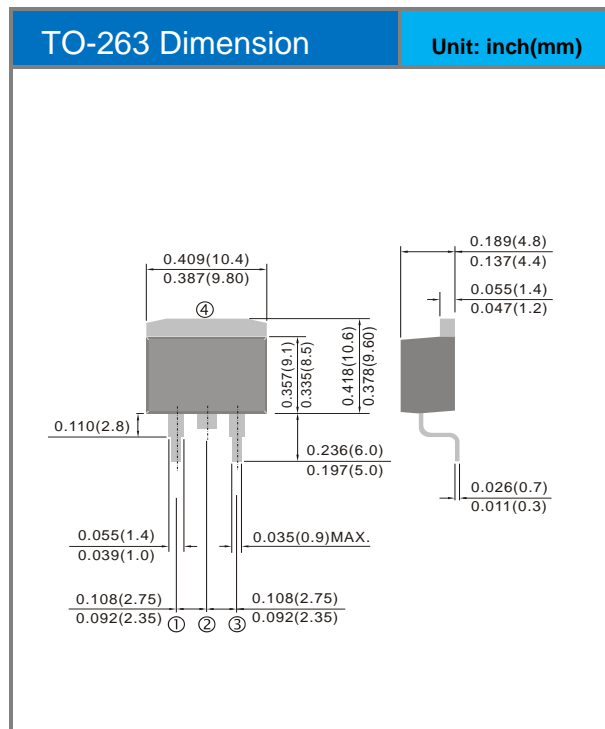
Fig.5 Operating Temperature Derating Curve

SBT30100VYB

Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
SBT30100VYB_R2_00001	TO-263	800 pcs / 13" reel	SBT30100VYB	Halogen free

Packaging Information & Mounting Pad Layout





SBT30100VYB

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