



SBT40100UDC

EXTREME LOW VF SCHOTTKY BARRIER RECTIFIER

Voltage

100 V

Current

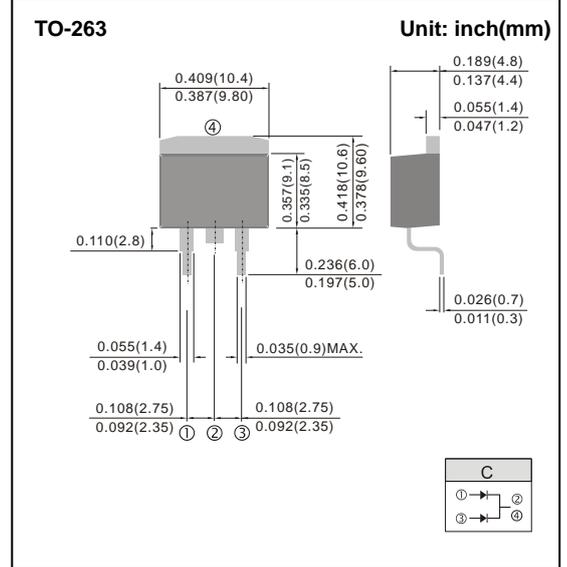
40 A

Features

- Ideal for automated placement
- Extreme low forward voltage drop, low power loss
- High efficiency operation
- Low thermal resistance
- Easy pick and place package suitable for automated handling
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)

Mechanical Data

- Case: Molded plastic, TO-263
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.049 ounces, 1.38 grams.
- Marking: Part number



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 diode	$I_{F(AV)}$	20	A
	per device		40	
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load per diode		I_{FSM}	250	A
Typical thermal resistance per diode	(Note 1)	$R_{\theta JC}$	2	$^{\circ}\text{C/W}$
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 per diode	V_{BR}	$I_R=0.5\text{mA}$	$T_J=25^{\circ}\text{C}$	100	-	-	V
Instantaneous forward voltage per diode	V_F	$I_F=5\text{A}$	$T_J=25^{\circ}\text{C}$	-	0.45	-	V
		$I_F=10\text{A}$		-	0.52	-	
		$I_F=20\text{A}$		-	0.65	0.7	
		$I_F=5\text{A}$	$T_J=125^{\circ}\text{C}$	-	0.37	-	V
$I_F=10\text{A}$	-	0.48		-			
Reverse current per diode	I_R	$V_R=70\text{V}$	$T_J=25^{\circ}\text{C}$	-	12	-	μA
			$T_J=125^{\circ}\text{C}$	-	7.7	-	mA
		$V_R=100\text{V}$	$T_J=25^{\circ}\text{C}$	-	-	120	μA
			$T_J=125^{\circ}\text{C}$	-	15	-	mA



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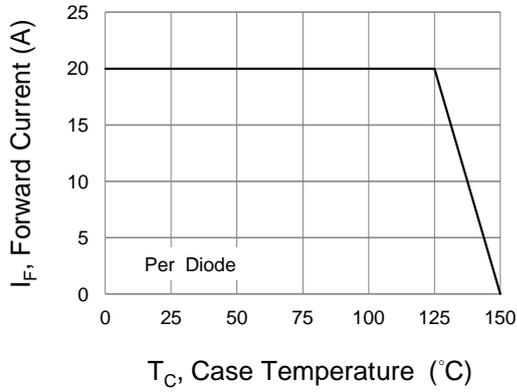


Fig.1 Forward Current Derating Curve

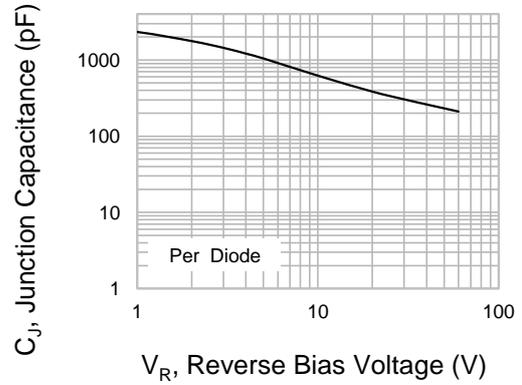


Fig.2 Typical Junction Capacitance

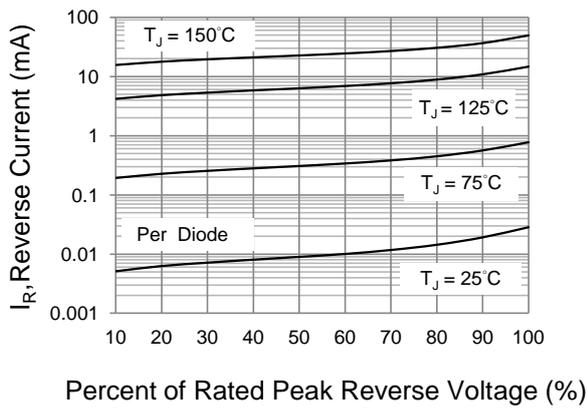


Fig.3 Typical Reverse Characteristics

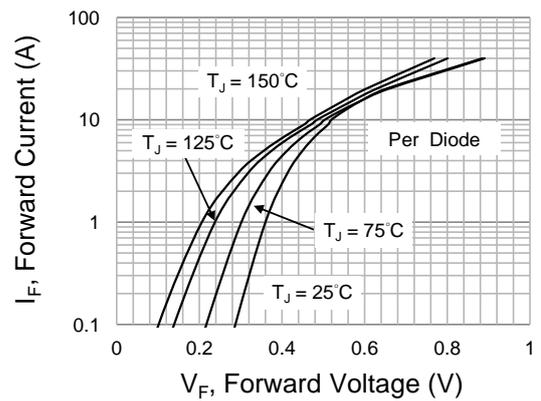


Fig.4 Typical Forward Characteristics

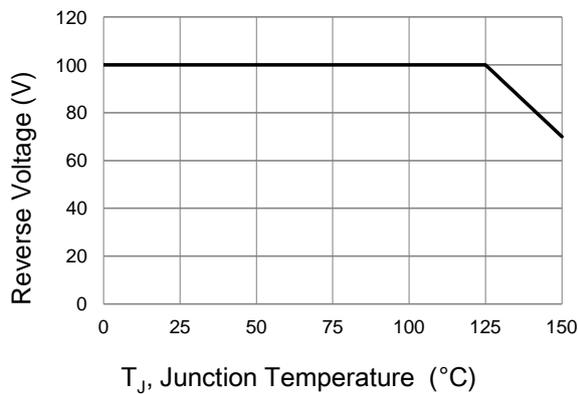


Fig.5 Operating Temperature Derating Curve



SBT40100UDC

Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
SBT40100UDC_R2_00001	TO-263	800 pcs / 13" reel	SBT40100UDC	Halogen free

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