



SBT3080UCT / SBT3080UFCT / SBT3080UCB

EXTREME LOW VF SCHOTTKY RECTIFIER

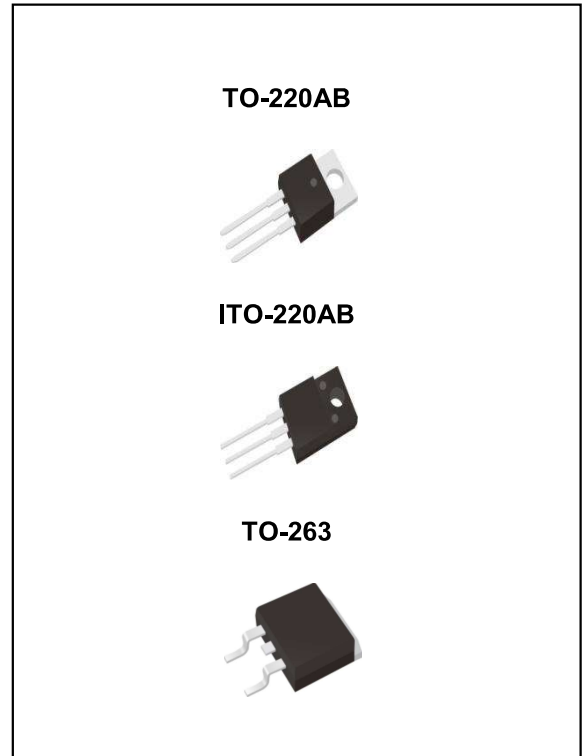
Voltage	80 V	Current	30 A
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Features

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

Mechanical Data

- Case: TO-220AB, ITO-220AB, TO-263 Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- TO-220AB Approx. Weight: 0.067 ounces, 1.89 grams
- ITO-220AB Approx. Weight: 0.056 ounces, 1.6 grams
- TO-263 Approx. Weight: 0.049 ounces, 1.38 grams



Maximum Ratings and Thermal Characteristics (T_A = 25 °C unless otherwise noted)

PARAMETER		SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage		V _{RRM}	80	V
Maximum Rms Voltage		V _{RMS}	56	V
Maximum Dc Blocking Voltage		V _{DC}	80	V
Maximum Average Forward Current	per device	I _{F(AV)}	30	A
	per diode		15	
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load		I _{FSM}	200	A
Typical Junction Capacitance Measured at 1 MHZ And Applied V _R = 4 V		C _J	800	pF
Typical Thermal Resistance	TO-220AB, TO-263	R _{θJC} ⁽¹⁾	2	°C/W
	ITO-220AB		5.5	
Operating Junction Temperature Range		T _J	-55~150	°C
Storage Temperature Range		T _{STG}	-55~150	°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	$I_F = 1\text{ A}, T_J = 25^\circ\text{C}$	-	0.37	-	V
		$I_F = 5\text{ A}, T_J = 25^\circ\text{C}$	-	0.46	-	
		$I_F = 15\text{ A}, T_J = 25^\circ\text{C}$	-	-	0.65	
		$I_F = 1\text{ A}, T_J = 125^\circ\text{C}$	-	0.24	-	
		$I_F = 5\text{ A}, T_J = 125^\circ\text{C}$	-	0.39	-	
Reverse Current	$I_R^{(2)}$	$V_R = 64\text{ V}, T_J = 25^\circ\text{C}$	-	10	-	μA
		$V_R = 80\text{ V}, T_J = 25^\circ\text{C}$	-	-	50	
		$V_R = 80\text{ V}, T_J = 125^\circ\text{C}$	-	12	-	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

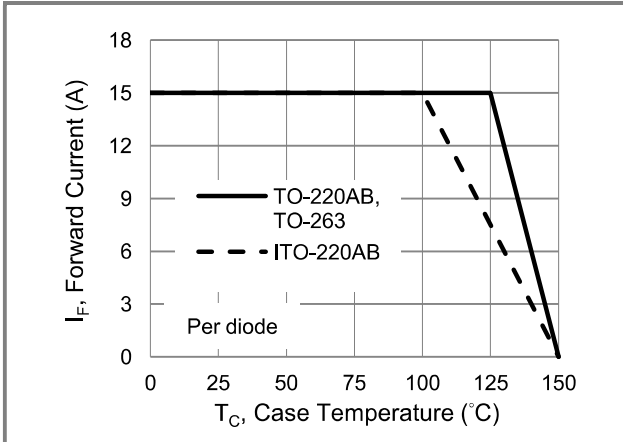


Fig.1 Forward Current Derating Curve

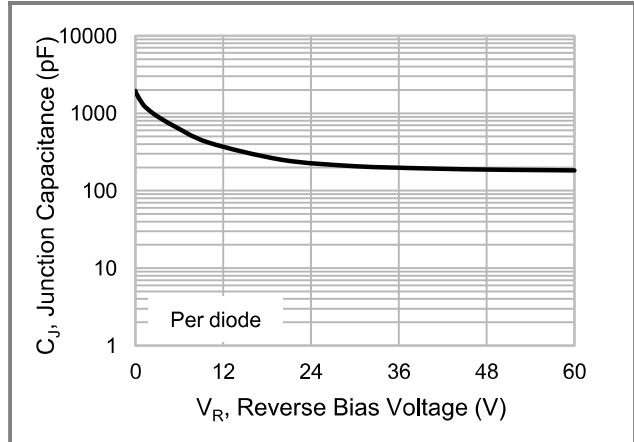


Fig.2 Typical Junction Capacitance

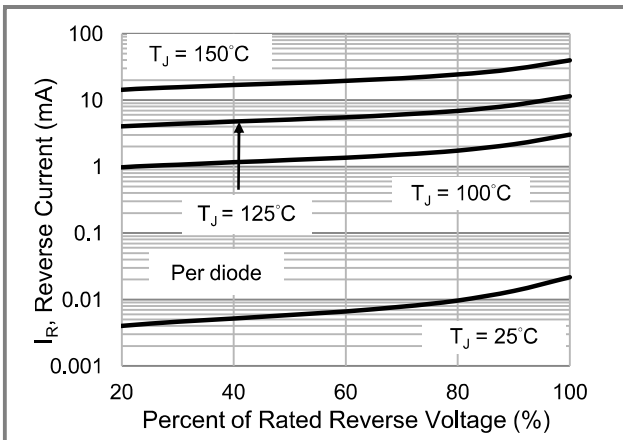


Fig.3 Typical Reverse Characteristics

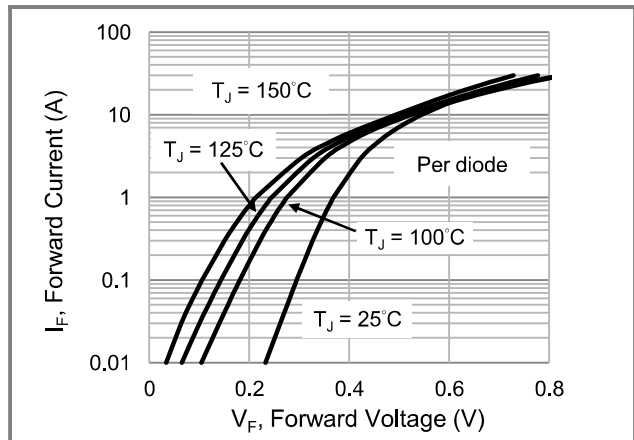


Fig.4 Typical Forward Characteristics

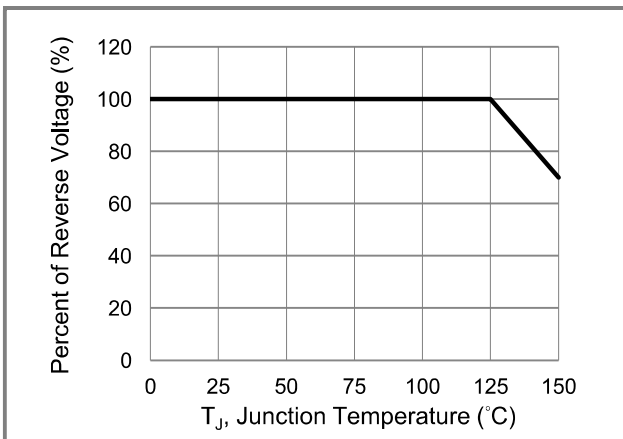


Fig.5 Operating Temperature Derating Curve



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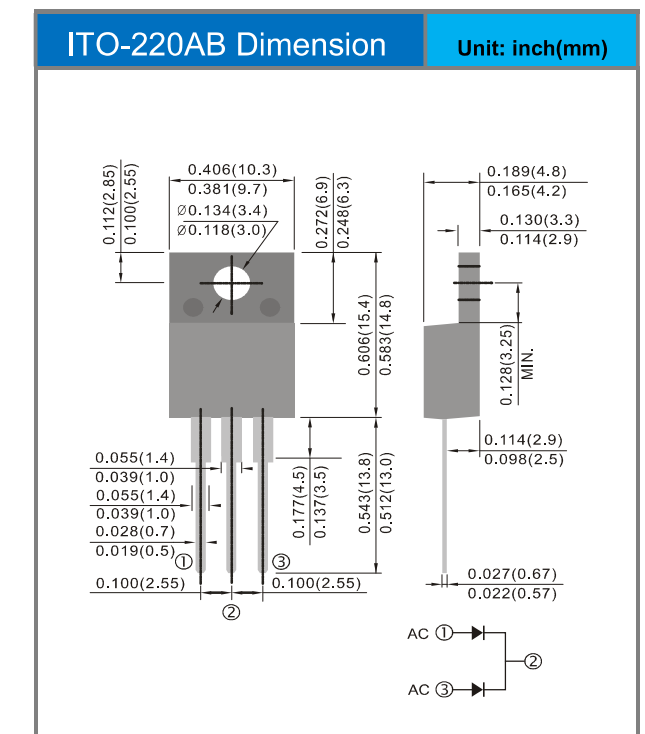
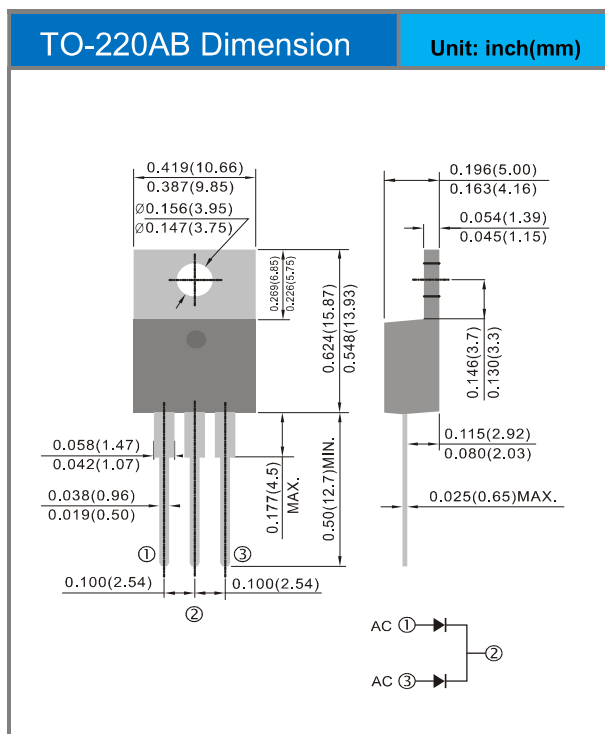
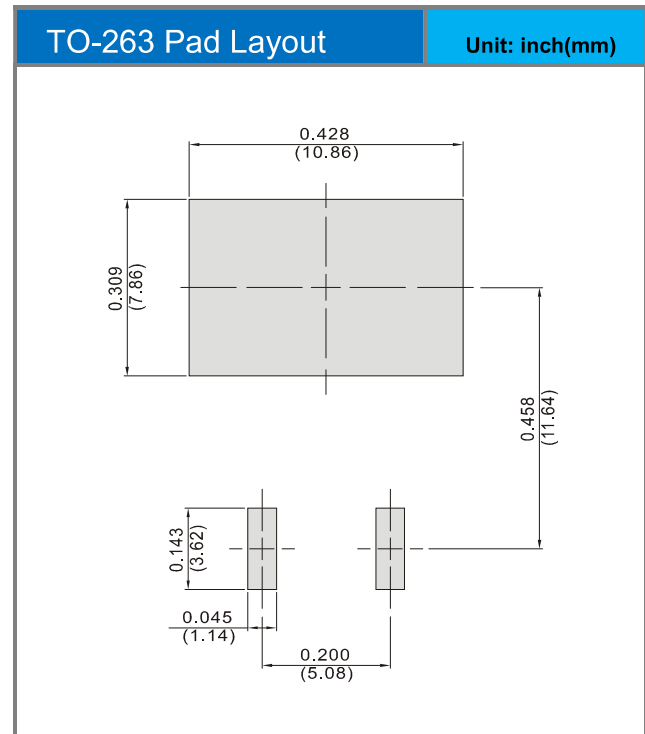
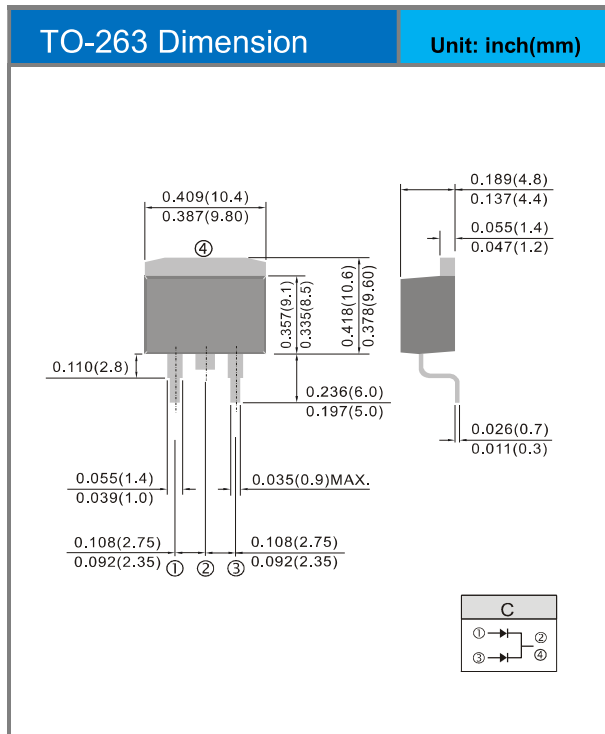
Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
SBT3080UCT_T0_00001	TO-220AB	50pcs / Tube	SBT3080UCT	Halogen free
SBT3080UFCT_T0_00001	ITO-220AB	50pcs / Tube	SBT3080UFCT	Halogen free
SBT3080UCB_R2_00001	TO-263	800 pcs / 13" reel	SBT3080UCB	Halogen free



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Packaging Information & Mounting Pad Layout





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