

SBT40150LCT~SBT40150LFCT

ULTRA LOW VF SCHOTTKY RECTIFIER

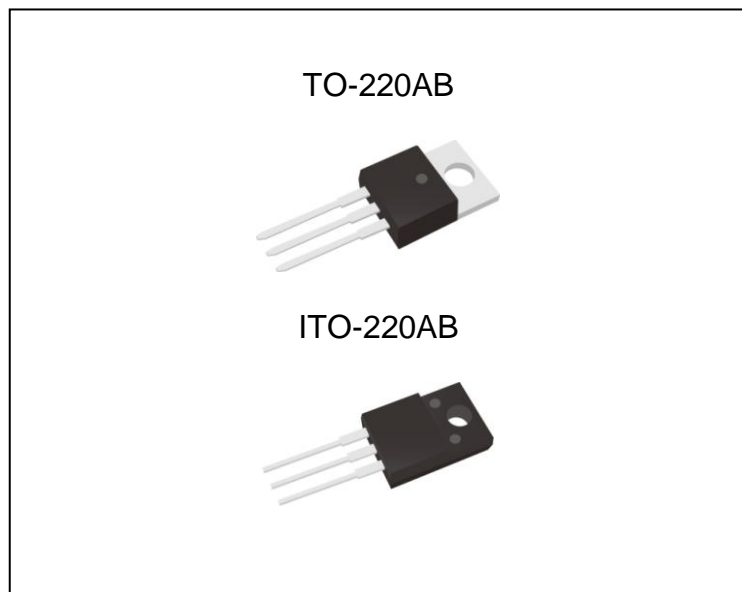
Voltage	150 V	Current	40 A
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Features

- Ultra low forward voltage, Low Power loss
- Surface mount package
- Ultra thin profile package for space constrained utilization
- 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-220AB, ITO-220AB
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- TO-220AB Weight: 0.067 ounces, 1.89 grams.
- ITO-220AB Weight: 0.056 ounces, 1.6 grams



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

PARAMETER		SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage		V _{RRM}	150	V
Maximum rms voltage		V _{RMS}	105	V
Maximum dc blocking voltage		V _R	150	V
Maximum average forward rectified current	per device	I _{F(AV)}	40	A
	per diode		20	
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)	TO-220AB	R _{θJC}	2	°C/W
	ITO-220AB		5.5	
Operating junction temperature range		T _J	-55 to +150	°C
Storage temperature range		T _{STG}	-55 to +150	°C

Electrical Characteristics

PARAMETER	SYMBOL	TEST CONDITION		TYP.	MAX.	UNIT
Forward voltage per diode	V _F	I _F =1A	T _J =25°C	0.49	-	V
		I _F =5A		0.68	-	
		I _F =20A		0.84	0.88	
		I _F =1A	T _J =125°C	0.4	-	V
I _F =5A	0.56	-				
Reverse current per diode (Note 2)	I _R	V _R =120V	T _J =25°C	2.6	-	μA
		V _R =150V	T _J =25°C	-	60	μA
			T _J =125°C	3.1	-	mA

Note : 1. Mounted on infinite heatsink.

2. Short duration pulse test used to minimize self-heating effect.



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TYPICAL CHARACTERISTIC CURVES

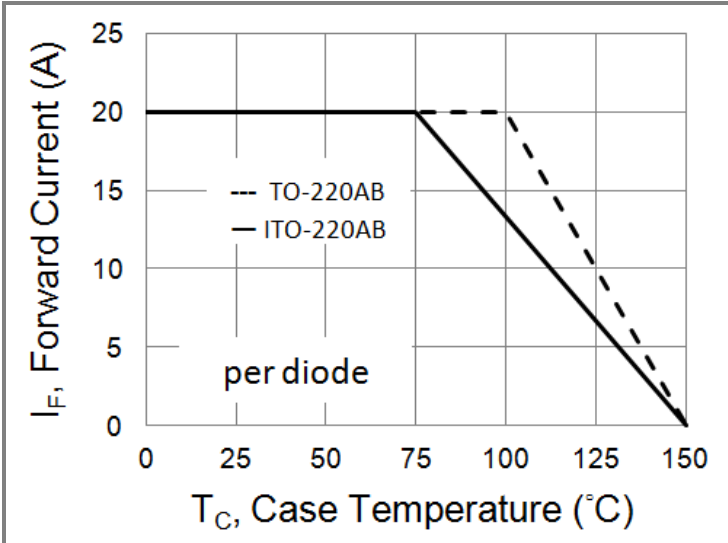


Fig.1 Forward Current Derating Curve

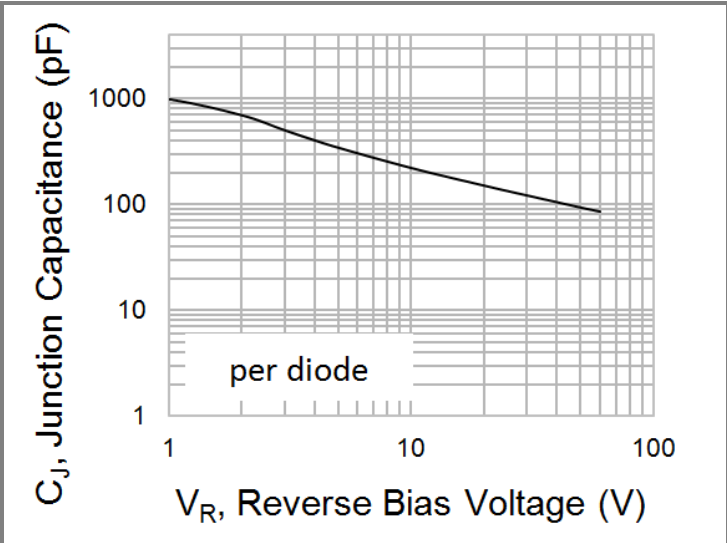


Fig. 2 Typical Junction Capacitance

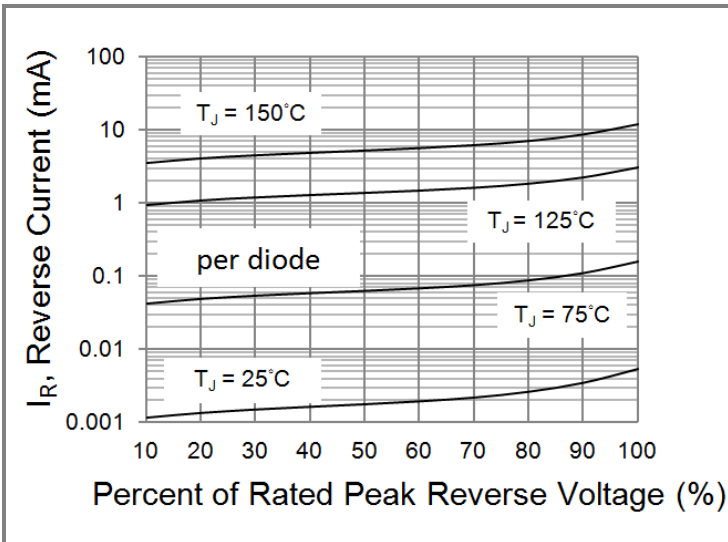


Fig.3 Typical Reverse Characteristics

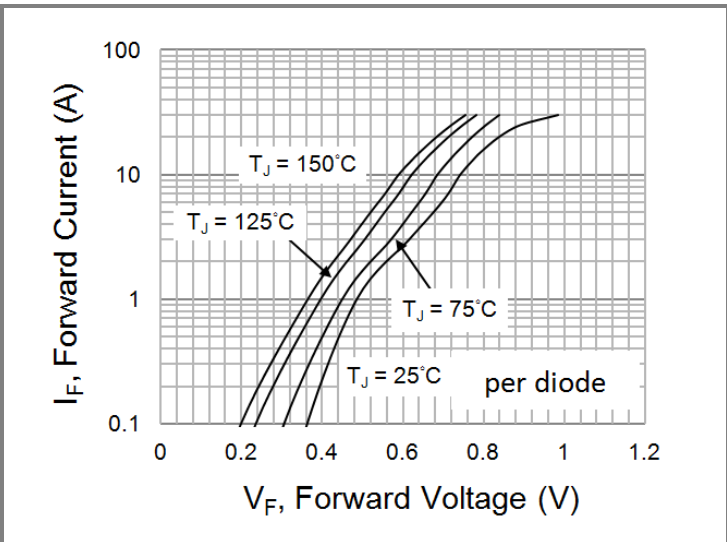


Fig.4 Typical Forward Characteristics

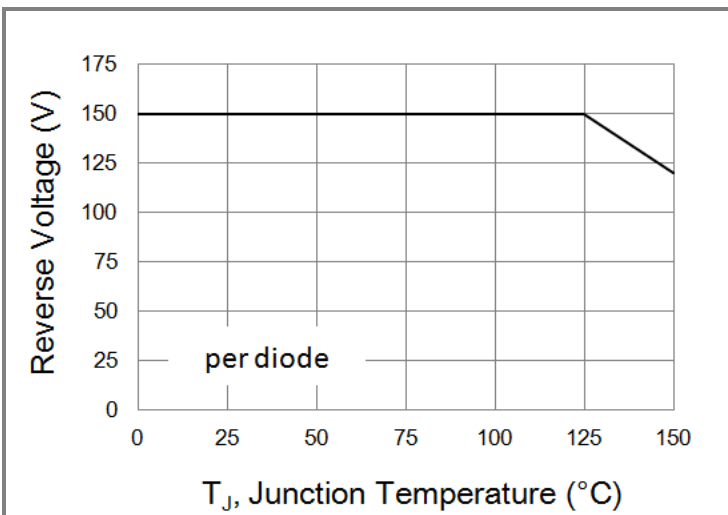
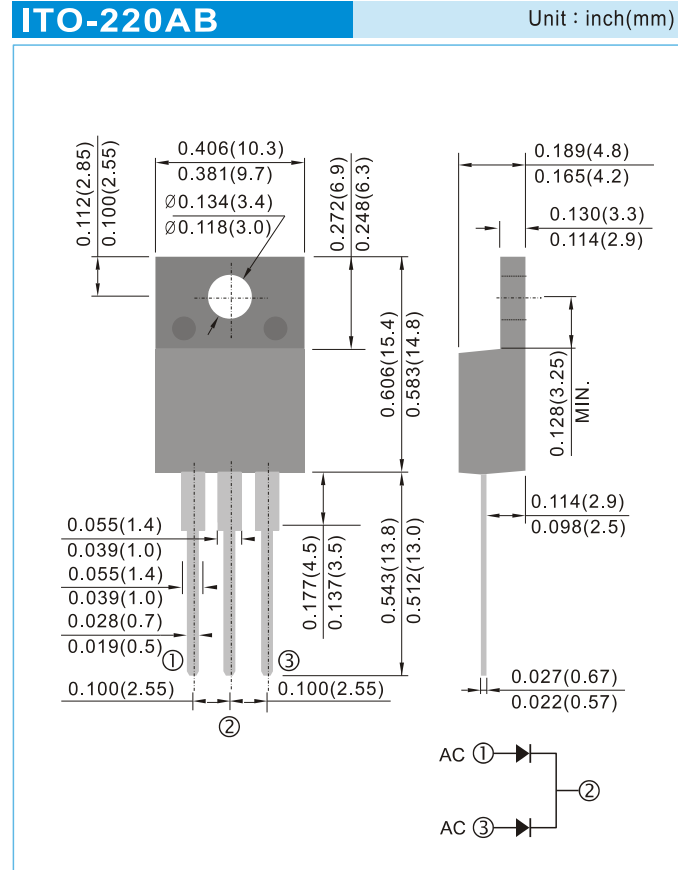
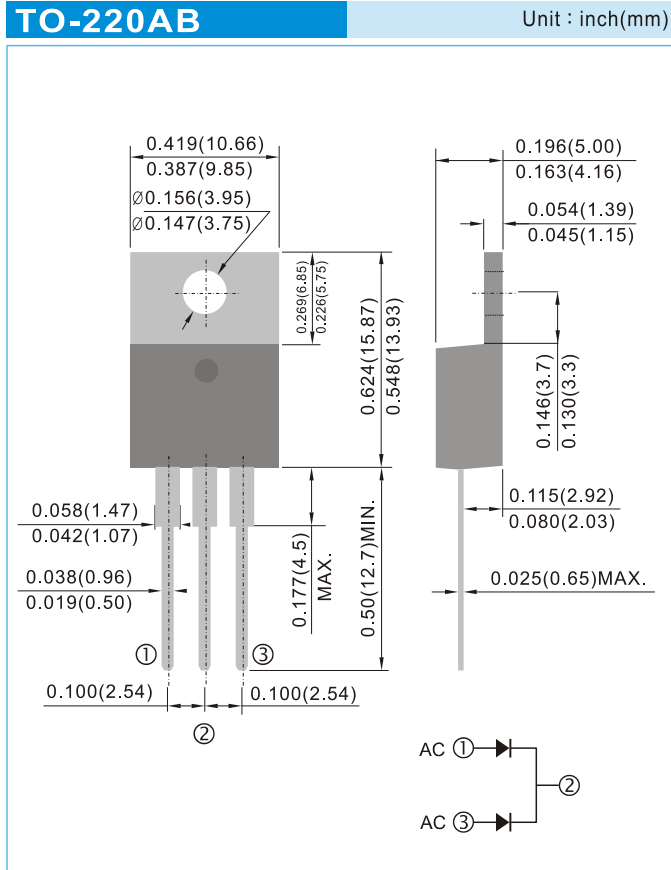


Fig.5 Operating Temperature Derating Curve



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Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
SBT40150LCT_T0_00001	TO-220AB	50pcs / Tube	SBT40150LCT	Halogen free
SBT40150LFCT_T0_00001	ITO-220AB	50pcs / Tube	SBT40150LFCT	Halogen free



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