

SBT30L45CT/FCT/DC

ULTRA LOW VF SCHOTTKY RECTIFIER

VOLTAGE	45 Volt	CURRENT	30Ampere
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FEATURES

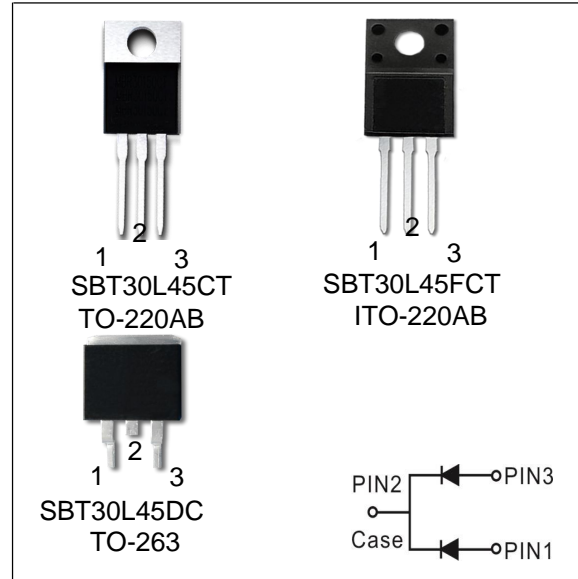
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Low power loss, high efficiency.
- High current capability
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- Lead free in compliance with EU RoHS 2011/65/EU directive

MECHANICAL DATA

Device Weight : 0.07 ounces (1.96grams) - TO -220AB
 0.06 ounces (1.74grams) - ITO -220AB
 0.04 ounces (1.16 grams)- TO -263

- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.

Mounting Torque : Recommended 4~5 kg-cm.



MARK: CHXXX

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

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	45	V
Maximum average forward rectified current	$I_{F(AV)}$	15 30	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	200	A
Typical junction capacitance ($V_R=4V$, $f=1\text{MHz}$)	C_J	-	pF
Typical thermal resistance per diode (Note 1)	$R_{\theta JC}$	3.5	$^{\circ}\text{C/W}$
Operating junction temperature range	T_J	-40 to + 150	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-40 to + 150	$^{\circ}\text{C}$

Note : 1. Mounted on infinite heatsink.

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage per diode	V_{BR}	$I_R=0.1\text{mA}$	45	-	-	V
Instantaneous forward voltage per diode	V_F	$I_F=15\text{A}$ $T_J=25^{\circ}\text{C}$	-	0.43	0.48	V
		$I_F=15\text{A}$ $T_J=125^{\circ}\text{C}$	-	0.40	0.44	
Reverse current per diode	I_R	$V_R=45\text{V}$ $T_J=25^{\circ}\text{C}$	-	-	100	μA
		$V_R=45\text{V}$ $T_J=125^{\circ}\text{C}$	-	-	100	mA

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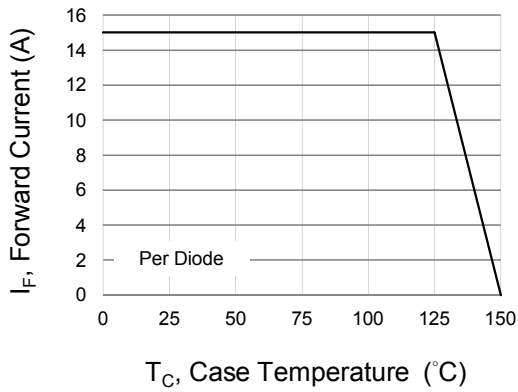


Fig.1 Forward Current Derating Curve

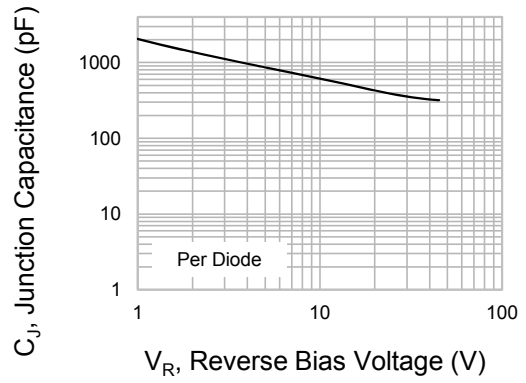


Fig.2 Typical Junction Capacitance

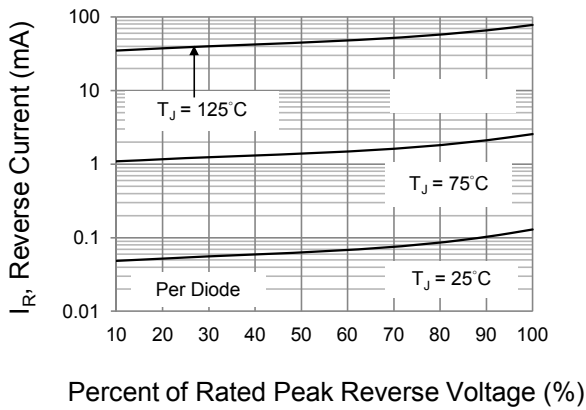


Fig.3 Typical Reverse Characteristics

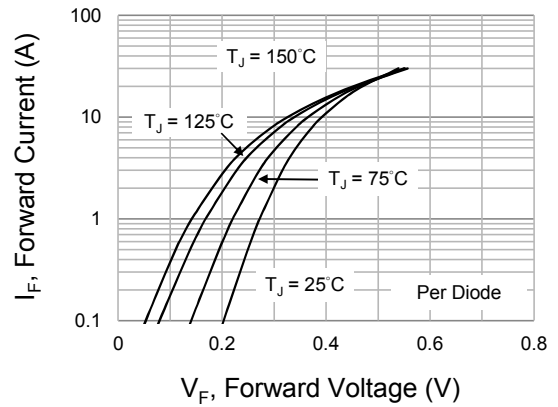
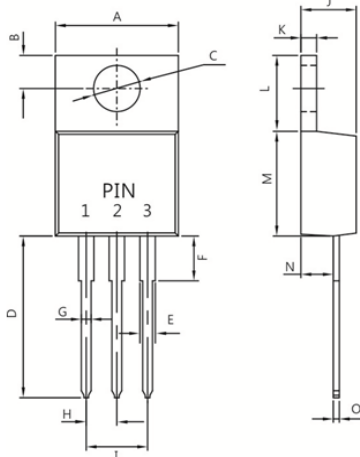


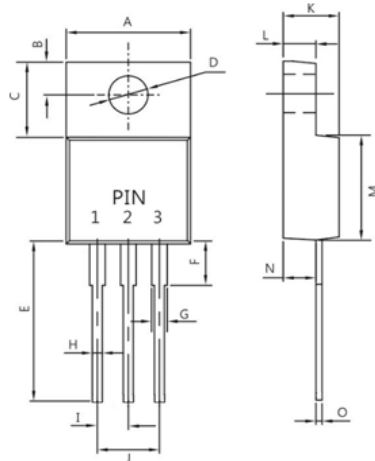
Fig.4 Typical Forward Characteristics

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TO-220AB


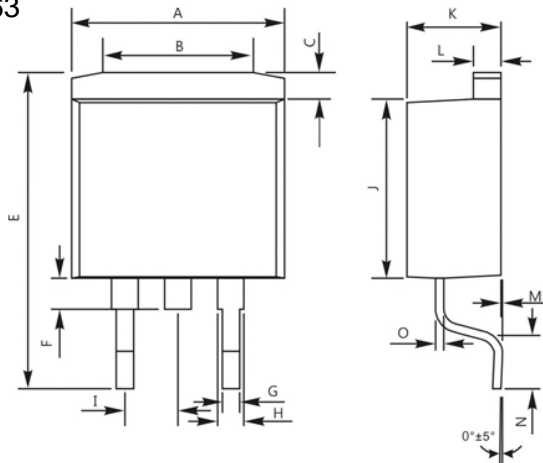
Dim.	Min.	Max.
A	----	10.50
B	2.50	3.50
C	3.50	4.10
D	13.10	13.90
E	1.15	1.49
F	----	6.35
G	0.65	0.95
H	2.29	2.79
I	4.80	5.30
J	4.40	4.80
K	1.14	1.40
L	5.84	6.86
M	8.50	9.60
N	2.03	2.92
O	0.30	0.64

All Dimensions in millimeter

ITO-220AB


Dim.	Min.	Max.
A	----	10.50
B	2.60	3.00
C	6.70	7.10
D	2.90	3.50
E	13.10	13.90
F	----	4.00
G	1.11	1.45
H	0.40	0.80
I	2.40	2.80
J	5.00	5.40
K	4.30	4.70
L	2.90	3.30
M	8.20	9.00
N	2.50	2.90
O	0.40	0.80

All Dimensions in millimeter

TO-263


Dim.	Min.	Max.
A	9.65	10.69
B	7.30	Ref.
C	1.30	Ref.
E	14.70	15.90
F	1.5	Ref.
G	0.76	1.00
H	1.14	1.70
I	2.54	Ref.
J	8.55	9.50
K	4.40	4.85
L	1.25	1.50
M	----	0.25
N	2.30	2.80
O	0.36	0.60

All Dimensions in millimeter