

Features

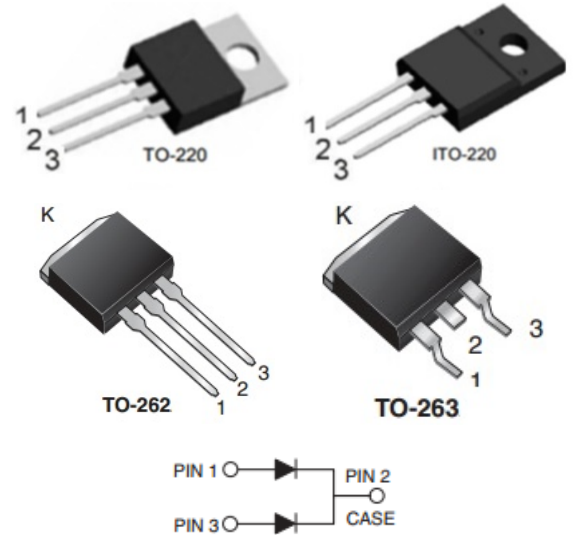
- Ultra Low Forward Voltage Drop
- Excellent High Temperature Stability
- Patented Super Barrier Rectifier Technology
- Soft, Fast Switching Capability

Mechanical Data

- Case: TO-220AB, ITO-220AB, TO-262AB, TO-263AB
- Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0
- Terminals: Matte Tin Finish annealed over Copper leadframe. Solderable per MIL-STD-202, Method 208

Ordering Information

Part No.	Package	Packing
SBT10L120CT	TO-220AB	50pcs / Tube
SBT10L120FCT	ITO-220AB	50pcs / Tube
SBT10L120CK	TO-262AB	50pcs / Tube
SBT10L120CG	TO-263AB	50pcs / Tube
SBT10L120CG	TO-263AB	800pcs / Reel



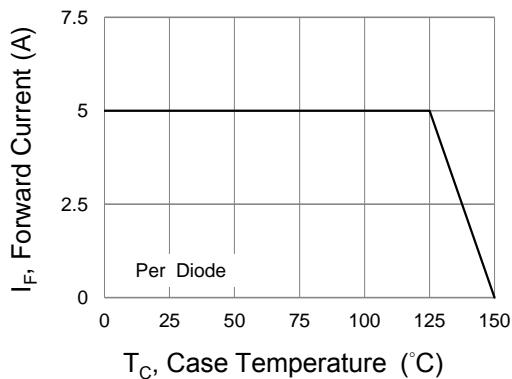
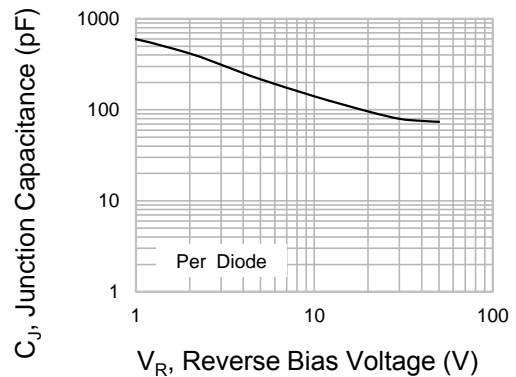
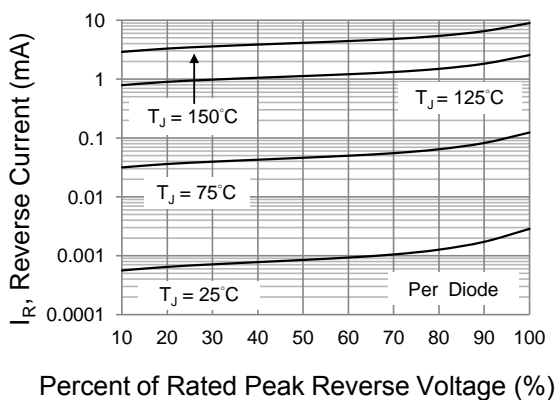
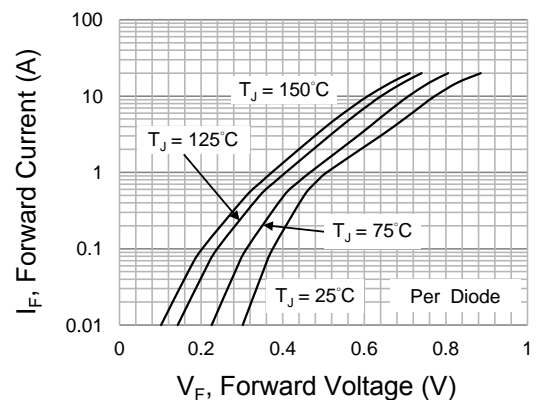
MAXIMUM RATINGS($T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	120	V
Maximum rms voltage	V_{RMS}	84	V
Maximum average forward rectified current	$I_{F(AV)}$	10 5	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150	A
Typical thermal resistance per diode	$R_{\theta JL}$	10	$^{\circ}\text{C/W}$
Operating junction temperature range	T_J	-55 to + 150	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-55 to + 150	$^{\circ}\text{C}$

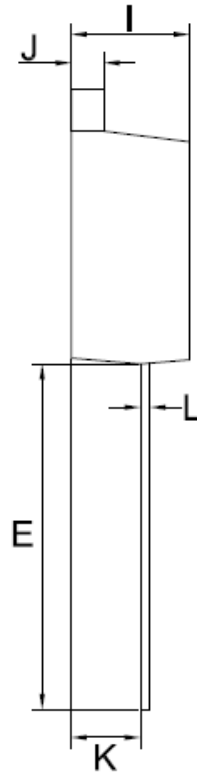
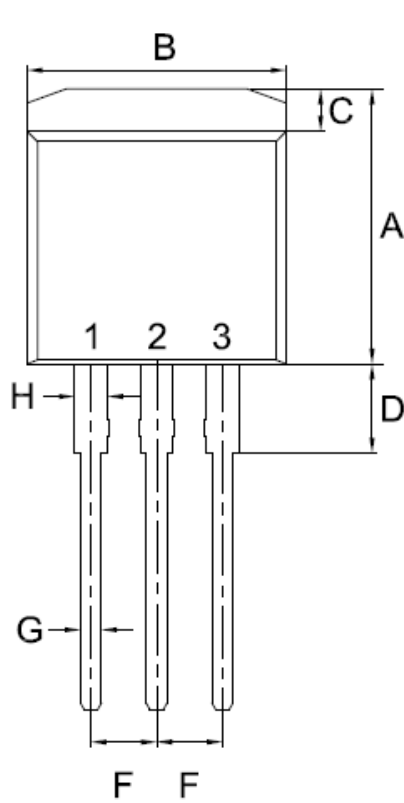
Note : 1. Mounted on infinite heatsink.

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage per diode	V _{BR}	I _R =0.5mA	120	-	-	V
Instantaneous forward voltage per diode	V _F	I _F =1A	-	0.51	-	V
		I _F =3A	-	0.64	-	
		I _F =5A	-	0.73	0.80	
		T _J =25°C				
		I _F =1A	-	0.41	-	V
		I _F =3A	-	0.52	-	
Reverse current per diode	I _R	V _R =96V	-	5	-	μA
		V _R =120V	-	-	50	μA
		T _J =25°C	-	3.2	-	mA
		T _J =125°C	-	-	-	

RATING AND CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

Fig.2 Typical Junction Capacitance

Fig.3 Typical Reverse Characteristics

Fig.4 Typical Forward Characteristics

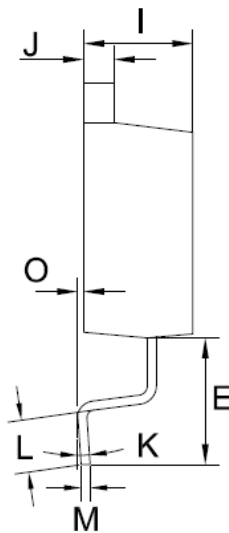
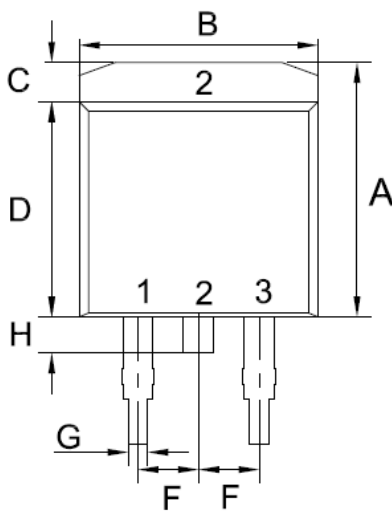
Package Outline Dimensions



TO-262 (I² PAK)

Unit:mm

DIM	MIN	MAX
A	10.14	11.14
B	9.57	10.57
C	1.44	1.84
D	2.95	3.95
E	12.70	13.40
F	2.34	2.74
G	0.51	1.11
H	0.97	1.57
I	4.27	4.87
J	1.07	1.47
K	2.03	2.92
L	0.30	0.46



TO-263 (D² PAK)

Unit:mm

DIM	MIN	MAX
A	10.44	10.84
B	9.81	10.21
C	1.44	1.84
D	8.80	9.20
E	4.46	4.66
F	2.44	2.64
G	0.61	1.01
H	0.70	1.30
I	4.27	4.87
J	1.07	1.47
K	0°	8°
L	2.10	2.50
M	0.30	0.46
O	0	0.25

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