HFZT

SBT40L100CT

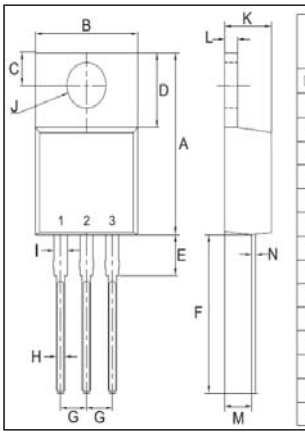
TO-220AB Plastic-Encapsulate Transistors

FEATURES

- Ultra Low Forward Voltage Drop
- Excellent High Temperature Stability
- Patented Super Barrier Rectifier Technology
  Soft, Fast Switching Capability
- Case Material: Molded Plastic, UL Flammability
  Ciassification Rating 94V-0

MECHANICAL DATA

- Case: TO-220AB molded plastic body
- Terminals: Matte Tin Finish annealed over Copper
  leadframe Solderable per MIL-STD-202, Method 208



TO-220AB
Unit:mm

DIM	MIN	MAX
A	14.80	15.80
B	9.57	10.57
C	2.54	2.94
D	5.80	6.80
E	2.95	3.95
F	12.70	13.40
G	2.34	2.74
H	0.51	1.11
I	0.97	1.57
J	3.54Φ	4.14Φ
K	4.27	4.87
L	1.07	1.47
M	2.03	2.92
N	0.30	0.64

MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)Single phase,half wave,60 Hz,resistive or inductive load.
For capacitive load,derate by 20%.

PARAMETER		SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage		V_{RRM}	100	V
Maximum rms voltage		V_{RMS}	70	V
Maximum average forward rectified current	per device per diode	$I_{F(AV)}$	40 20	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	per diode	I_{FSM}	300	A
Typical thermal resistance per diode	(Note 1)	$R_{\Theta JC}$	2	°C/W
Operating junction temperature range		T_J	-55 to + 150	°C
Storage temperature range		T_{STG}	-55 to + 150	°C

Note : 1. Mounted on infinite heatsink.

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Breakdown voltage per diode	V_{BR}	I_R=0.5mA	100	-	-	V
Instantaneous forward voltage per diode	V_F	I_F=5A I_F=10A T_J=25°C I_F=20A	- - -	0.46 0.55 0.65	- - 0.70	V
		I_F=5A I_F=10A T_J=125°C I_F=20A	- - -	0.38 0.50 0.55	- - -	V
Reverse current per diode	I_R	V_R=70V	- -	5 6	- -	μA mA
		V_R=100V T_J=25°C T_J=125°C	- -	- 12	100 -	μA mA

RATINGS AND CHARACTERISTIC CURVES

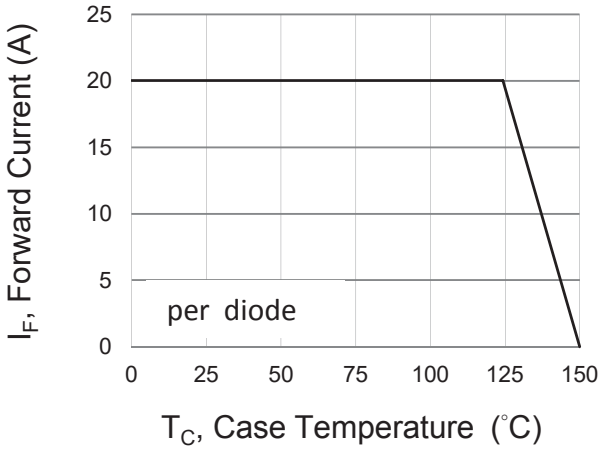


Fig.1 Forward Current Derating Curve

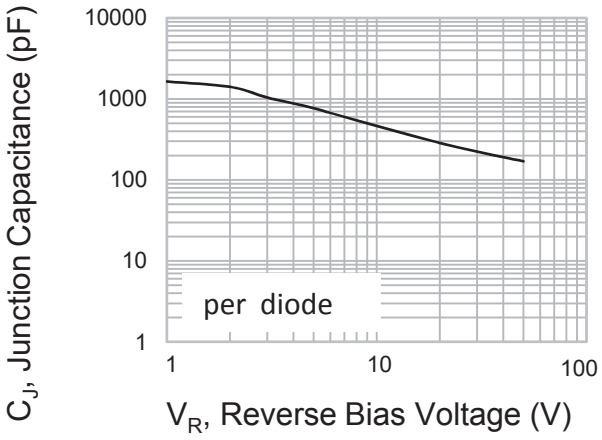


Fig.2 Typical Junction Capacitance

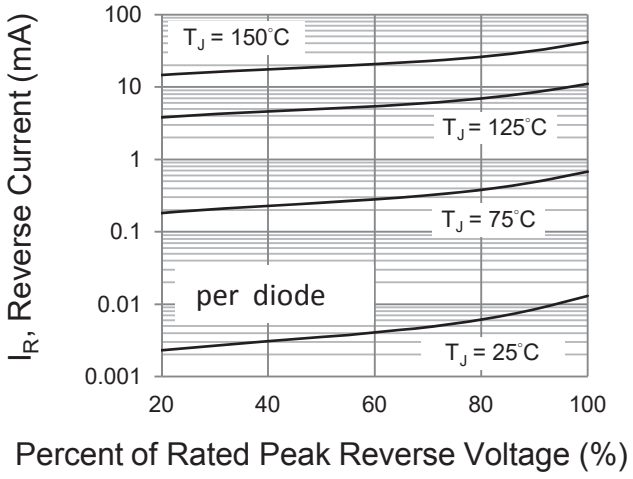


Fig.3 Typical Reverse Characteristics

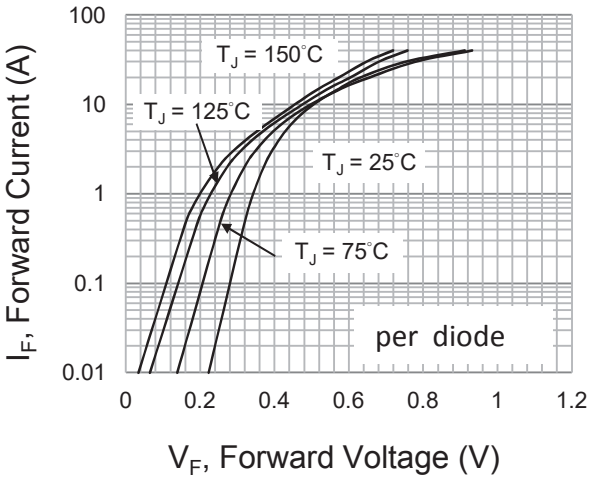


Fig.4 Typical Forward Characteristics