

Features

- High current capability.
- Ultra low forward voltage drop.
- Low power loss, high efficiency.
- High surge capability.
- High ESD capability.

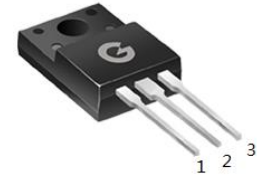
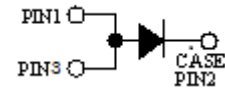


Typical Applications

For use in low voltage, high frequency rectifier of switching mode power supplies, freewheeling diodes, DC/DC converters and polarity protection application.

Mechanical Data

- Case: ITO-220AB.
- Molding compound, UL flammability classification rating 94V-0.
- Terminals: Matte tin plated leads, solderable per MIL-STD-202, Method 208.



SBTF30100S
ITO-220AB

Ordering Information

Part Number	Package	Shipping	Marking Code
SBTF30100S□	ITO-220AB	50/Tube	SBTF30100S

- : none is for Lead Free package;
“G” is for Halogen Free package.

Maximum Ratings (@T_A=25°C unless otherwise specified)

Characteristic	Symbol	Value	Units
Peak repetitive reverse voltage	V _{RRM}	100	V
RMS reverse voltage	V _{RMS}	70	V
DC blocking voltage	V _{DC}	100	V
Maximum average forward output current	I _{F(AV)}	30	A
Peak forward surge current, 8.3ms single half-sine-wave	I _{FSM}	250	A

Thermal Characteristics

Parameter	Symbol	Value	Units
Typical thermal resistance per leg	R _{θJC}	3	°C /W
Operating junction temperature range	T _J	150	°C
Storage temperature range	T _{STG}	-55 to +150	°C

Electrical Characteristics (@ $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Forward Voltage	V_F^*	$I_F=5\text{A}, T_J=25^\circ\text{C}$		0.46	0.50	V
		$I_F=15\text{A}, T_J=25^\circ\text{C}$		0.60	0.68	
		$I_F=30\text{A}, T_J=25^\circ\text{C}$		0.74	0.90	
Maximum Peak Reverse Current	I_R^*	$V_R = \text{Rated } V_{RRM}, T_J=25^\circ\text{C}$			250	μA
		$V_R = \text{Rated } V_{RRM}, T_J=100^\circ\text{C}$			10	m A

*Pulse width < 300 μs , Duty cycle < 2%

Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

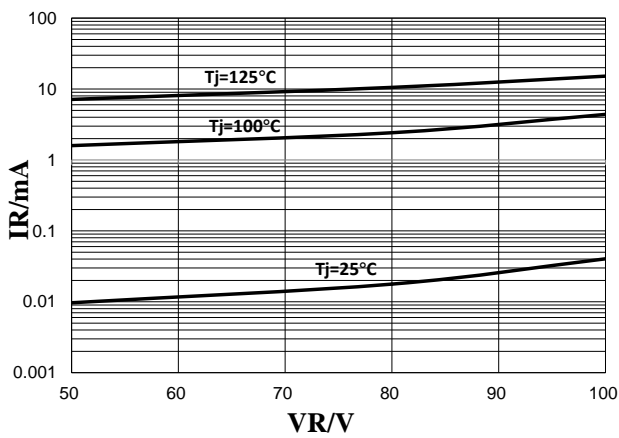


FIG.1-TYPICAL REVERSE CHARACTERISTICS

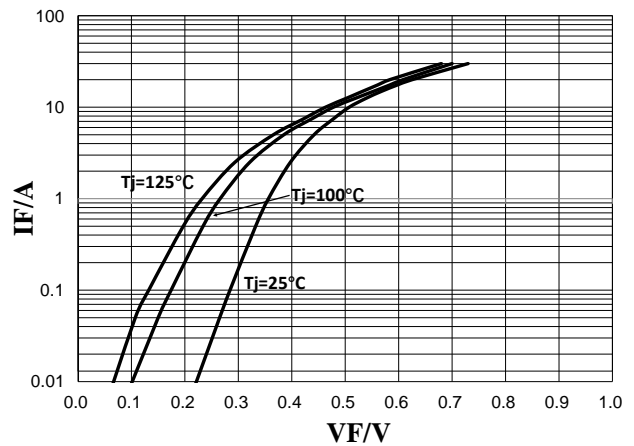


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

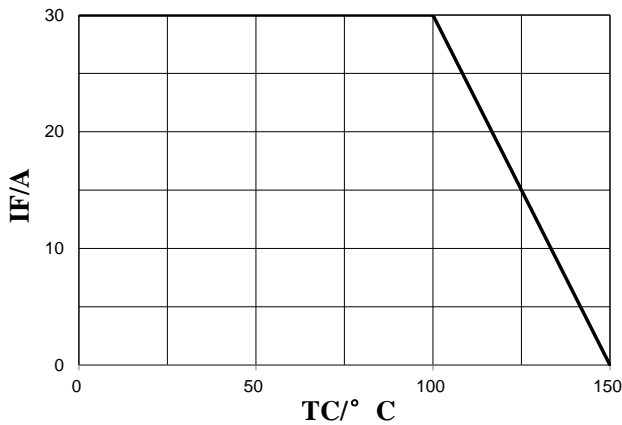
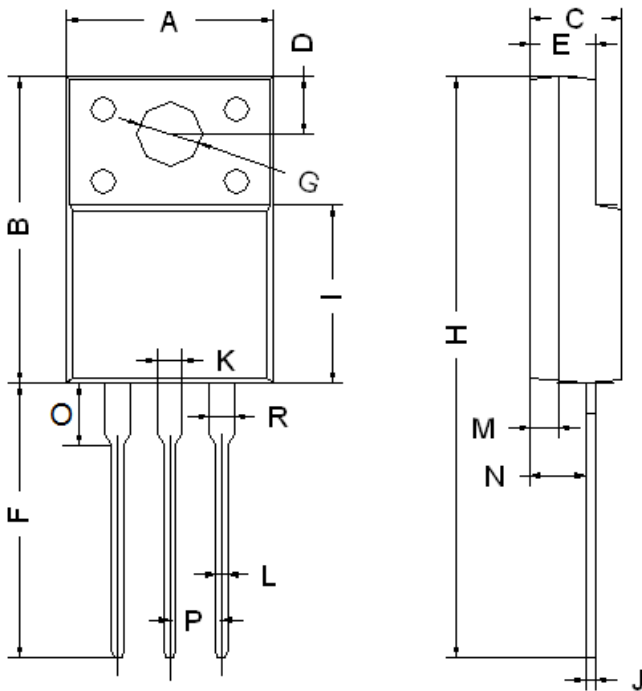


FIG.3-TYPICAL FORWARD CURRENT DERATING CURVE

Package Outline Dimensions (unit:mm)

ITO-220AB



ITO-220AB		
Dim	Min	Max
A	9.90	10.30
B	14.80	15.20
C	4.30	4.70
D	2.50	2.90
E	2.80	3.30
F	13.00	13.60
G	3.10	3.30
H	28.00	28.60
I	7.90	8.90
J	0.40	0.60
L	0.70	0.90
M	1.30	1.50
N	2.60	2.80
O	2.60	3.10
P	2.45	2.65
K/R	1.10	1.30

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