



SBR(X)30200CT

Trench Schottky Barrier Rectifier

Reverse Voltage 200 Volts Forward Current 30 Amperes

Features

Ultra Low $V_F=0.80V$ at $I_F=10A$ ($25^{\circ}C$)

Ultra Low $V_F=0.90V$ at $I_F=15A$ ($25^{\circ}C$)

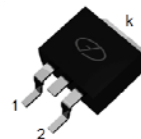
- Low forward voltage drop, low power losses
- High efficiency operation
- Plastic package has underwriters Laboratory Flammability Classification 94V-0



Package: ITO-220-AB
SBRF30200CT



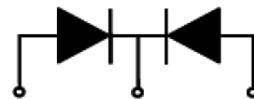
Package: TO-220-AB
SBR30200CT



Package: TO-263
SBRB30200CT

Mechanical Data

- Case: Epoxy, Molded
- Weight: 1.9grams(TO220/ITO220),1.40grams(TO263) (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: $260^{\circ}C$ Max. for 10 sec
- Shipped 50 units per plastic tube or tape reel packing 800/reel(TO263)



1. Anode 2. Cathode 3. Anode

Maximum Ratings & Electrical Characteristics

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

PARAMETER	TEST CONDITIONS		SYMBOL	SBR(X)30200CT	UNIT
Maximum repetitive peak reverse voltage			V_{RRM}	200	V
Working peak reverse voltage			V_{RWM}	200	V
Maximum DC blocking voltage			V_{DC}	200	V
Maximum average forward rectified current at $T_c=105^{\circ}C$ total device per diode			$I_F(AV)$	30 15	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode			I_{FSM}	200	A
Peak repetitive reverse current per leg at $t_p=2.0\mu s$, 1KHz			I_{RRM}	2.0	A
Voltage rate of change (rated V_R)			DV/dt	10000	V/ μs
Operating junction temperature range			T_J	-55 to $+150$	$^{\circ}C$
Storage temperature range			T_{STG}	-55 to $+150$	$^{\circ}C$
Isolation voltage (ITO-220-AB only) from terminal to heatsink $t = 1$ sec			V_{AC}	1500	V
Maximum instantaneous forward voltage per leg	$I_F=15A$ $I_F=15A$	$T_C=25^{\circ}C$ $T_C=125^{\circ}C$	V_F	0.98(0.90TYP) 0.89	V
Maximum reverse current per leg at working peak Reverse voltage		$T_J=25^{\circ}C$ $T_J=100^{\circ}C$	I_R	500 50	μA mA

Thermal Characteristics $T_A=25^{\circ}C$ unless otherwise noted

Symbol	Parameter	TYP (TO-220-AB/TO263)	TYP (ITO-220-AB)	Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case per Leg	2.0	4.0	$^{\circ}C / W$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient per Leg	62.5	62.5	$^{\circ}C / W$

Note: Pulse test:300us pulse width, duty cycle=2%





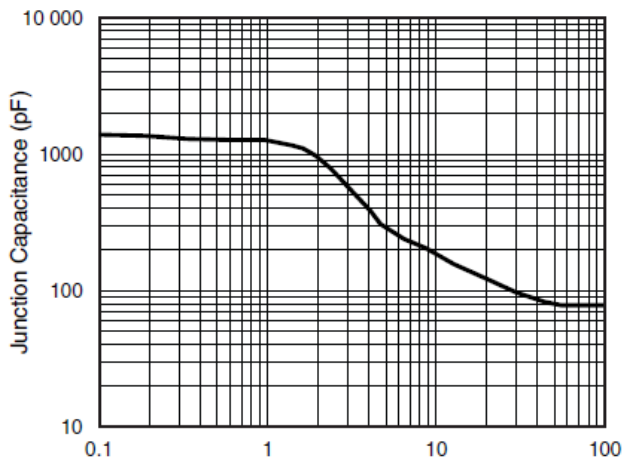
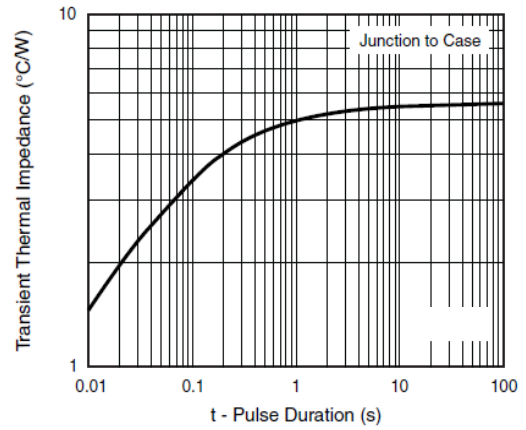
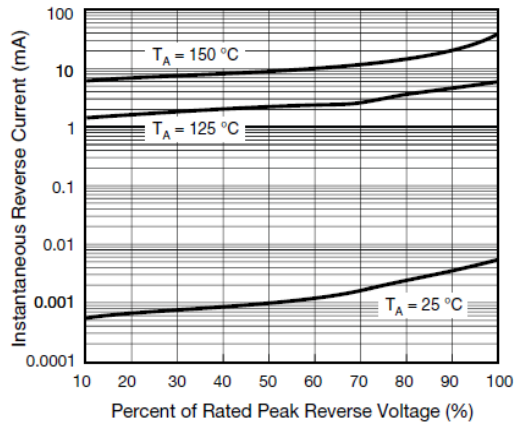
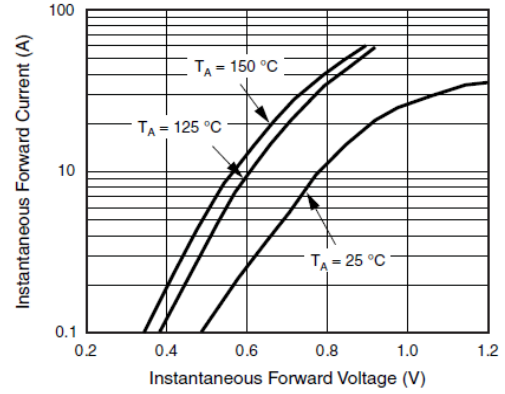
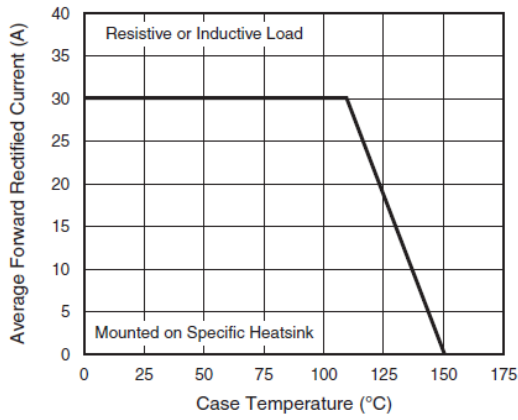
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Ratings and Characteristics Curves

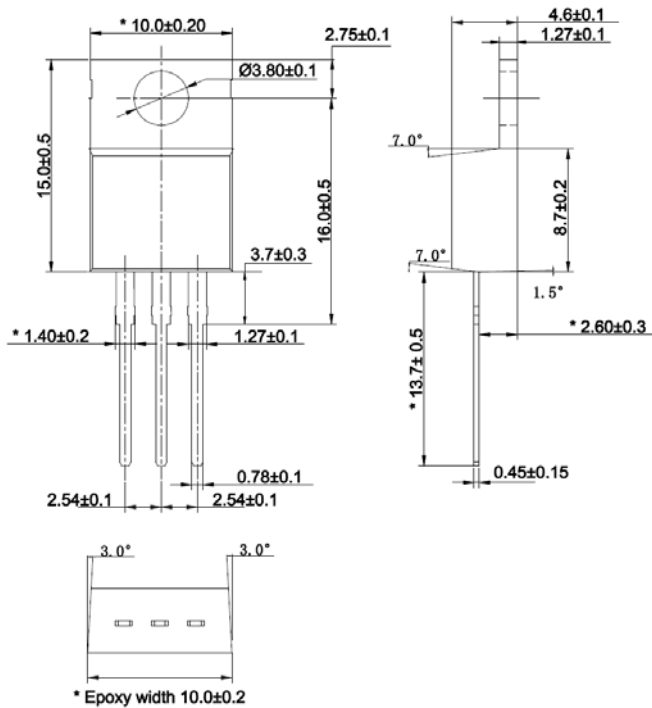
($T_A = 25^\circ\text{C}$ unless otherwise noted)



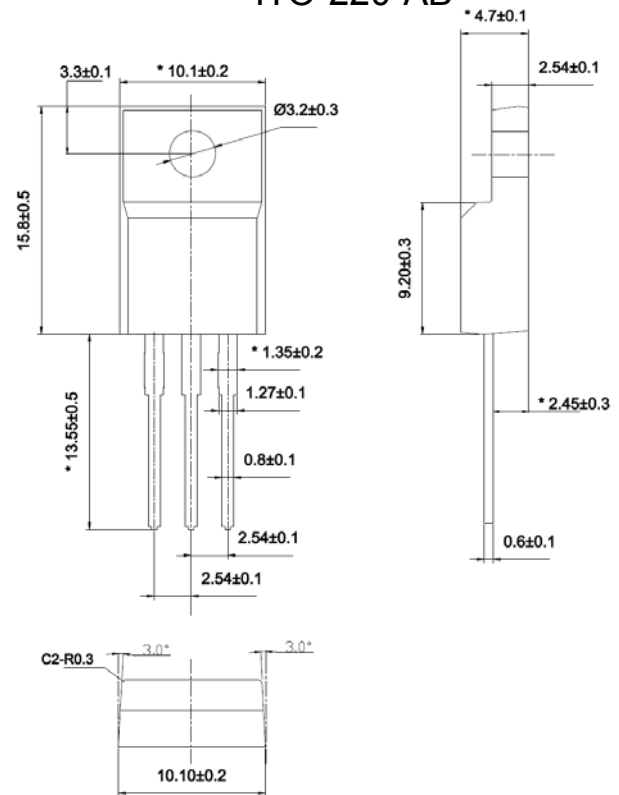
Package Outline Dimensions

Unit: millimeters

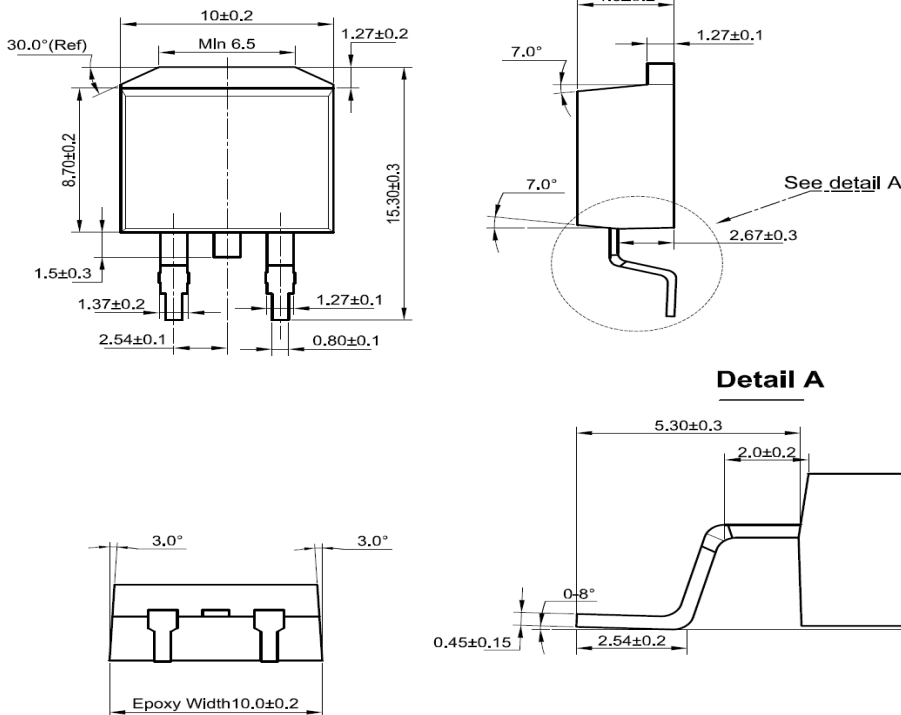
TO-220-AB



ITO-220-AB



TO-263





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