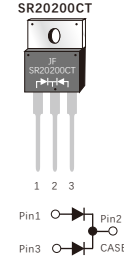
SEMICONDUCTOR

SR20200CT,SRF20200CT,SR20200D1

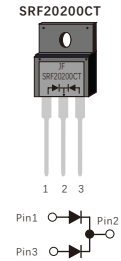
SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 200 Volts
Forward Current - 20.0Amperes

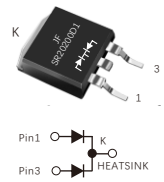
TO-220AB



ITO-220AB



TO-263



FEATURES

- Power pack
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- High forward surge capability
- High frequency operation
- Per J-STD-020,LF MAX peak of 260℃ (for TO-263 package)
- Solder bath temperature 275℃ maximum, 10s, per JESD22-B106 (for TO-220AB and ITO-220AB package)
- Component in accordance to RoHS 2015/863/EU

Pb
RoHS
COMPLIANT

MECHANICAL DATA

- Case: JEDEC TO-220AB、ITO-220AB、TO-263
- Molding compound meets UL94V-0 flammability rating
- Terminals: Lead solderable per J-STD-002 and JESD22-B102
- Polarity: As marked
- Mounting Torque: 10 in-lbs maximum

TYPICAL APPLICATIONS

For use in low voltage ,high frequency inverters ,DC/DC converters,free wheeling ,and polarity protection applications

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	2×10A
V_{RRM}	200V
I_{FSM}	200A
V_F at I_F=10.0A,Per leg	0.85V
I_R	1μA
T_j(MAX)	175℃
Package	TO-220AB,ITO-220AB, TO-263AB
Diode variations	Common cathode

MAXIMUM RATINGS

(Ratings at 25℃ ambient temperature unless otherwise specified)

Parameter		Symbol	Value	Unit
Maximum repetitive peak reverse voltage		V_{RRM}	200	V
Maximum average forward rectified current (see fig.1)	Per leg	$I_{F(AV)}$	10.0	A
	Total device		20.0	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)		I_{FSM}	200	A
Peak repetitive reverse current per diode at tp=2μs 1KHz		I_{RRM}	0.5	A
Operating junction and Storage temperature range		T_J ,T_{stg}	-55 to+175	℃
Isolation voltage(ITO-220AB only)from terminals to heatsink t=1 min		V_{AC}	1500	V

ELECTRICAL CHARACTERISTCS (Per leg,T_A=25℃ Unless otherwise noted)

Parameter	Test Conditions		Symbol	TYP.	MAX.	Unit
Instaneous forward voltage	Per leg IF=10.0A	T_A=25℃	V_F 1)	0.85	0.95	V
		T_A=100℃		0.76	-	
		T_A=125℃		0.72	-	
	Per leg IF=5.0A	T_A=25℃		0.78	0.85	
		T_A=100℃		0.67	-	
		T_A=125℃		0.63	-	
Reverse current	VR= 200V	T_A=25℃	I_R 2)	1	5	μA
		T_A=100℃		-	1	mA
		T_A=125℃		-	3	
Typical junction capacitance	4V,1MHz		C_J	137		pF

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

2.Pulse test: pulse width≤40ms

THERMAL CHARACTERISTCS

Parameter	Symbol	SR20200CT	SRF20200CT	SR20200D1	Unit
Typical thermal resistance 3)	$R_{\theta JC}$	1.3	3.2	1.3	℃/W

3.Thermal resistance from junction to case,Total device

AVAILABALE PACK INFORMATION

Product code	Pack	Carton Size L×W×H(mm)	Inner Box Size L×W×H(mm)	Tube Length (mm)	Inner Box Number	Tube Number Per A Inner Box	Part Number Per A Tube	Quantity(carton) (K)
SR20200CT-TO-220AB	Tube	565×225×170	548×151×37	540	5	20	50	5
SRF20200CT-ITO-220AB	Tube	565×225×170	548×151×37	540	5	20	50	5
SR20200D1-TO-263	Tube	565×225×170	548×151×37	538	5	20	50	5
Product code	Pack	Carton Size L×W×H(mm)	Inner Box Size L×W×H(mm)	Reel Diameter (mm)	Inner Box Number	Reel Number Per A Inner Box	Part Number Per A Reel	Quantity(carton) (K)
SR20200D1-TO-263	Reel	364×364×235	330×330×38	φ330	5	1	800	4

FIG.1-FORWARD CURRENT DERATING CURVE

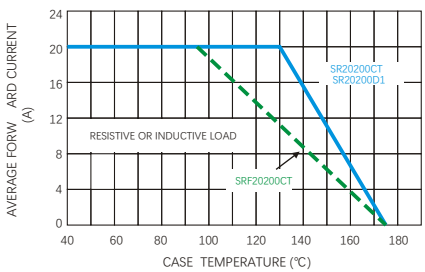


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

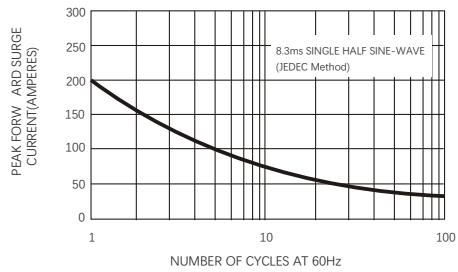


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

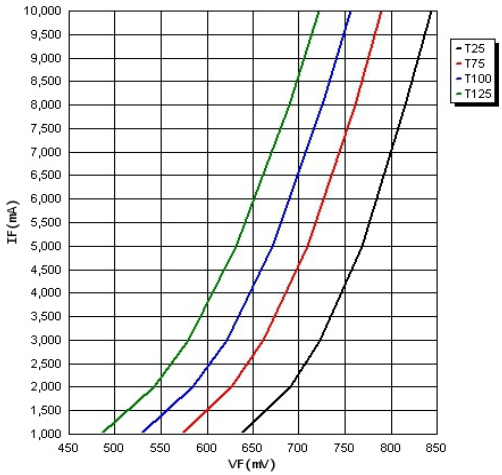


FIG.4-TYPICAL REVERSE CHARACTERISTICS

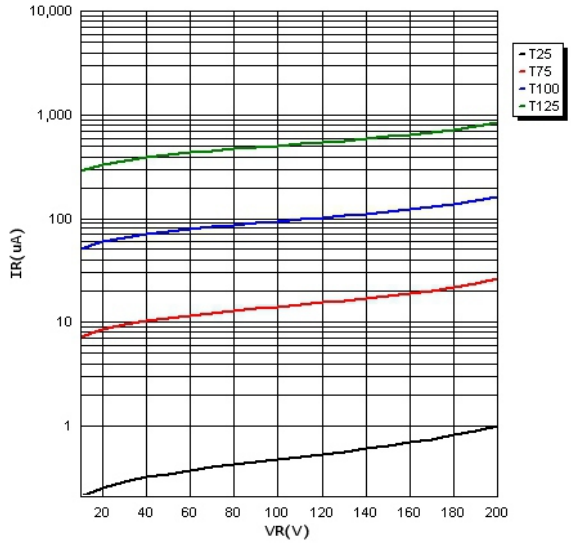
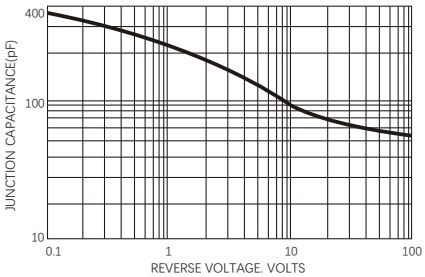
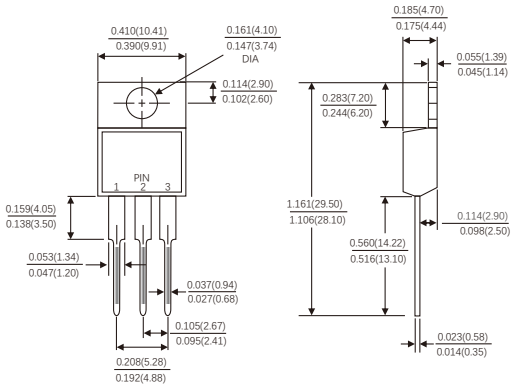


FIG.5-TYPICAL JUNCTION CAPACITANCE

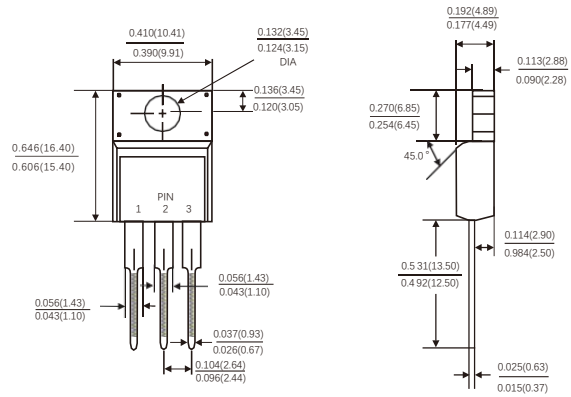


Dimensions in inches and (millimeters)

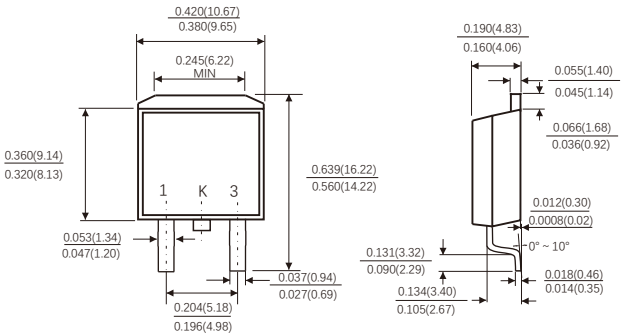
TO-220AB



ITO-220AB

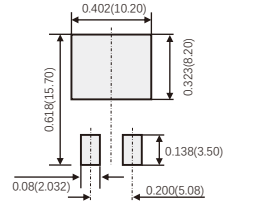


TO-263



Suggested Pad Layout

(TO-263)



(设计者可参考推荐值根据焊接工艺
要求自行确定适合的焊盘尺寸)
(Designers can refer to the recommended
values according to the manufacturing process
requirements to determine the appropriate pad size)

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