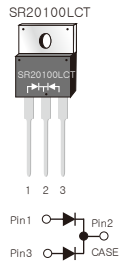
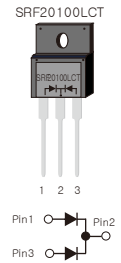
LOW VF SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 100 Volts
Forward Current - 20.0Amperes

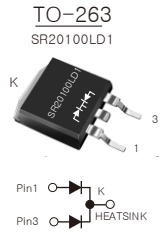
TO-220AB



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,LFMAX peak of 260℃ (for TO-263 package)
- Solder bath temperature 275℃maximum 10s, per JESD22-B106 (for TO-220AB and ITO-220ABpackage)
- Componentin accordance to RoHS 2015/863/EU

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

TYPICALAPPLICATIONS

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}	100V
IFSM ToTal Device	350A
V_F at I_F=10A(25℃,Per Leg)	0.63V
I_R	20μA
$T_{J(MAX)}$	150℃
Package	TO-220AB,ITO-220AB, TO-263
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}	100	V
Maximum average forward rectified current,D=0.5, Square waveform,Tc≤120℃ for TO-220AB and TO-263, Tc ≤ 95℃ for ITO-220AB (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,Total device)		I_{FSM}	350	A
Operating junction and Storage temperature range		T_J,T_{stg}	-55 to+150	℃

RATINGS AND CHARACTERISTICS

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

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instaneous forward voltage	I_F=10.0A	T_J=25℃	V_F 1)	0.66	0.73	V
		T_J=100℃		0.64	–	
		T_J=125℃		0.63	–	
	I_F=5.0A	T_J=25℃		0.53	–	
		T_J=100℃		0.51	–	
		T_J=125℃		0.50	–	
Reverse current	V_R=100V	T_J=25℃	I_R 2)	10	40	μA
		T_J=100℃		2	5	mA
		T_J=125℃		10	20	
Typical junction capacitance	4V,1MHz		C_J	680		pF

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle
2.Pulse test: pulse width≤40ms

THERMAL CHARACTERISTCS

Parameter	Symbol	SR20100LCT	SRF20100LCT	SR20100LD1	Unit
Typical thermal resistance 3)	$R_{\theta JC}$	2.0	4.0	2.0	℃/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)
SR20100LCT-TO-220AB	Tube	565×225×170	548×151×37	540	5	20	50	5
SRF20100LCT-ITO-220AB	Tube	565×225×170	548×151×37	540	5	20	50	5
SR20100LD1-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)
SR20100LD1-TO-263	Reel	364×364×235	330×330×38	φ330	5	1	800	4

RATINGS AND CHARACTERISTICS

FIG.1-FORWARD CURRENT DERATING CURVE

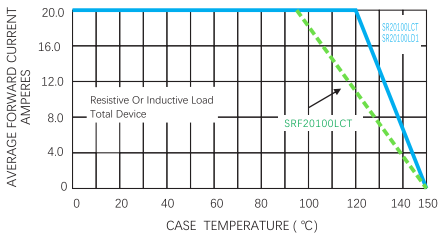


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

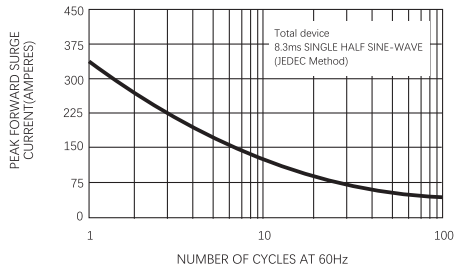


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

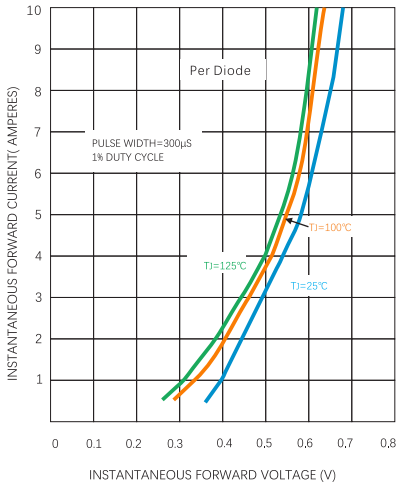


FIG.4-TYPICAL REVERSE CHARACTERISTICS

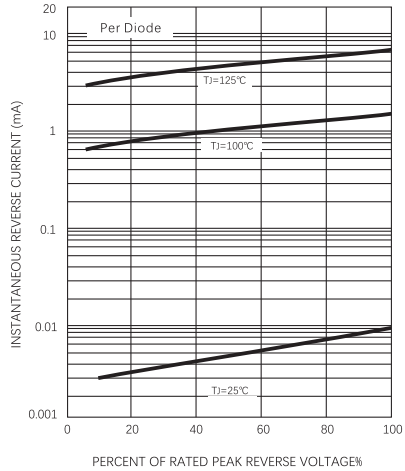
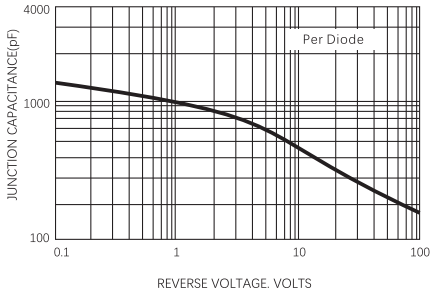


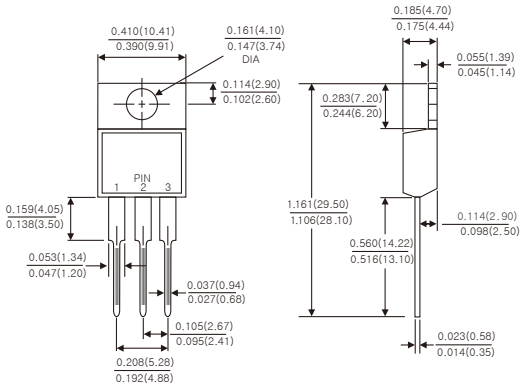
FIG.5-TYPICAL JUNCTION CAPACITANCE



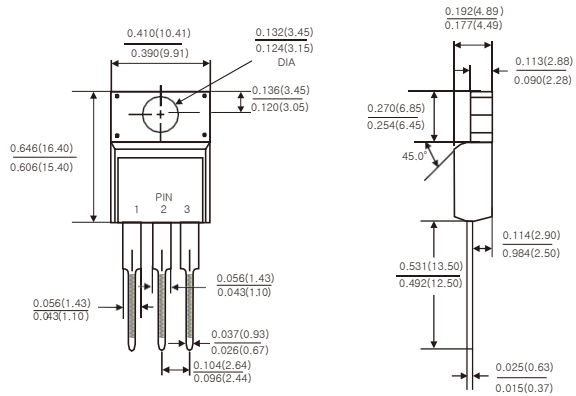
PACKAGE OUTLINE DIMENSIONS

Dimensions in inches and (millimeters)

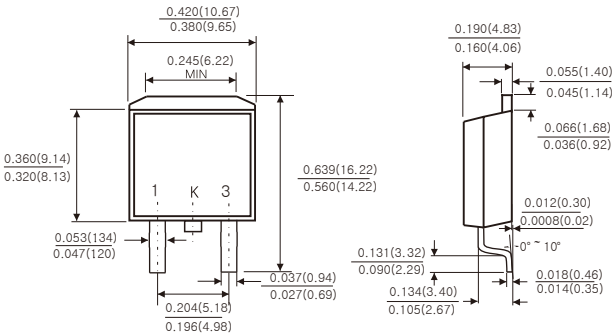
TO-220AB



ITO-220AB

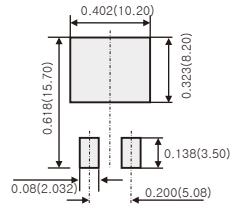


TO-263



Suggested Pad Layout

(TO-263)



(Designers can refer to the recommended values according to the manufacturing process requirements to determine the appropriate pad size)