

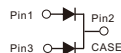
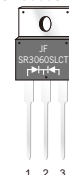
FEATURES

- 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
- Meets MSL Level 1, per J-STD-020, LF MAX peak of 245°C (for TO-263 package)
- Solder bath temperature 275°C maximum, 10s, per JESD22-B106 (for TO-220AB and ITO-220AB package)
- Component in accordance to RoHS 2011/65/EU



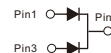
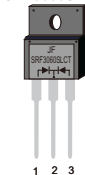
TO-220AB

SR3060SLCT



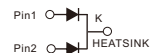
ITO-220AB

SRF3060SLCT



TO-263

SR3060SLD1



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

MAXIMUM RATINGS

(Ratings at 25°C ambient temperature unless otherwise specified)

Parameters	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	60	V
Maximum average forward rectified current (see fig.1)	I _{F(AV)}	Per leg	15.0
		Total device	30.0
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I _{FSM}	300	A
Peak repetitive reverse current per diode at tp=2 μs 1 KHz	I _{RRM}	0.5	A
Operating junction and Storage temperature range	T _J , T _{stg}	-55 to +150	°C
Isolation voltage (ITO-220AB only) from terminals to heatsink t=1 min	V _{AC}	1500	V

PRIMARY CHARACTERISTICS	
I _{F(AV)}	2×15A
V _{RRM}	60V
I _{FSM}	300A
V _F at I _F =15.0A, Per leg	0.49V
I _r	50 μ A
T _J (MAX)	150°C
Package	TO-220AB, ITO-220AB, TO-263
Diode variations	Common cathode

RATINGS AND CHARACTERISTIC OF SR3060SLCT,SRF3060SLCT,SR3060SLD1

ELECTRICAL CHARACTERISTICS (T_A=25°C Unless otherwise noted)

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instantaneous forward voltage	Per leg IF=15.0A	T _A =25°C	V _F ¹⁾	0.49	0.55	V
		T _A =100°C		0.45	—	
		T _A =125°C		0.43	—	
	Per leg IF=5.0A	T _A =25°C		0.39	0.45	
		T _A =100°C		0.31	—	
		T _A =125°C		0.28	—	
Reverse current	VR=60V	T _A =25°C	I _R ²⁾	50	100	μA
		T _A =100°C		—	10	mA
		T _A =125°C		—	50	
Typical junction capacitance	4V, 1MHz		C _J	1900		pF

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

2.Pulse test: pulse width≤40ms

THERMAL CHARACTERISTICS

Parameter	Symbol	SR3060SLCT	SRF3060SLCT	SR3060SLD1	Unit
Typical thermal resistance ³⁾	R _{θJC}	0.8	3.0	0.8	°C/W

3.Thermal resistance from junction to case

AVAILABLE PACK INFORMATION

Product code	Pack	Box Size L×W×H (mm)	Quantity (pcs/box)	Carton SizeL×W×H (mm)	Quantity (box/carton)
SR3060SLCT-TO-220AB	P/T	558×148×38	1000	565×225×170	5
SRF3060SLCT-ITO-220AB	P/T	558×148×38	1000	565×225×170	5
SR3060SLD1-TO-263	P/T	558×148×38	1000	565×225×170	5

RATINGS AND CHARACTERISTIC OF SR3060SLCT,SRF3060SLCT,SR3060SLD1

FIG.1-FORWARD CURRENT DERATING CURVE

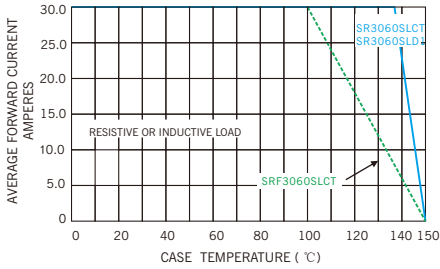


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

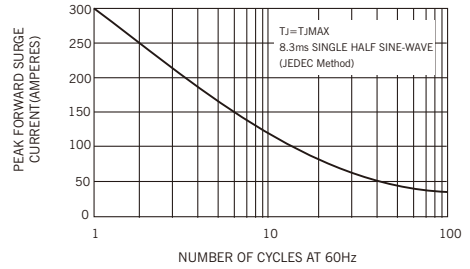


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

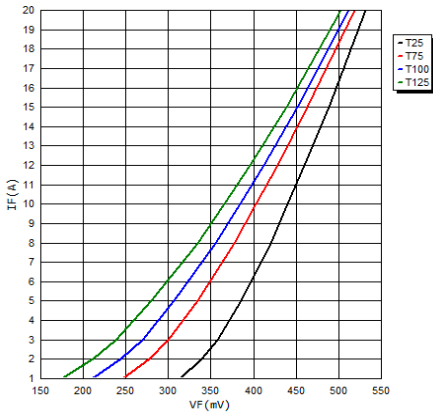


FIG.4-TYPICAL REVERSE CHARACTERISTICS

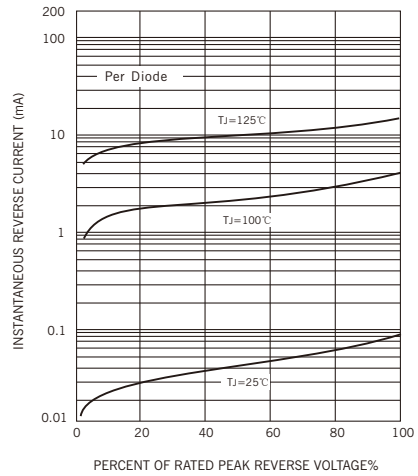
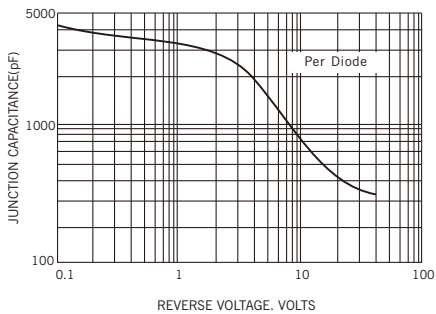
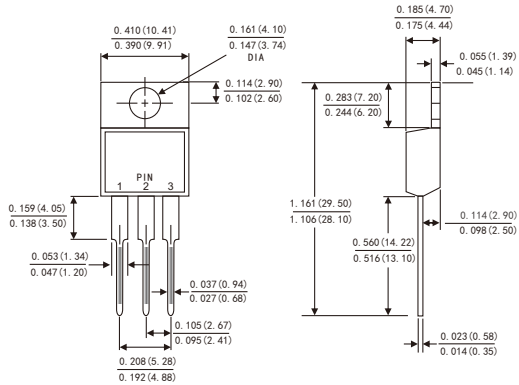


FIG.5-TYPICAL JUNCTION CAPACITANCE

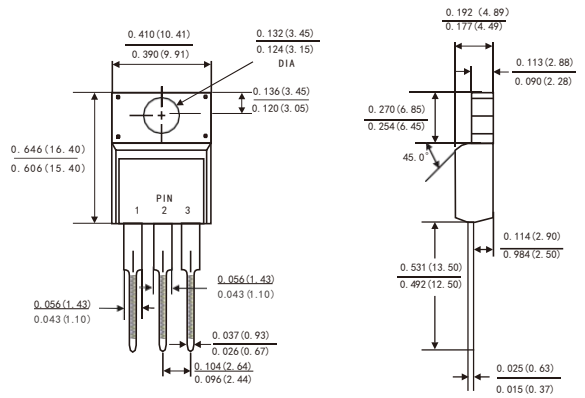


PACKAGE OUTLINE DIMENSIONS

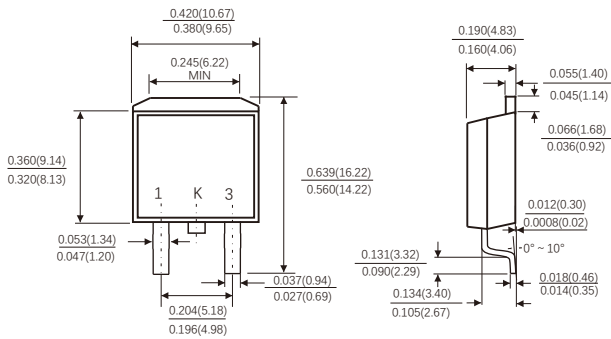
TO-220AB



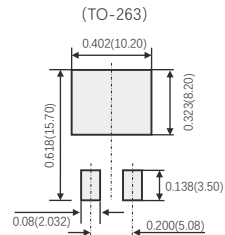
ITO-220AB



TO-263



Suggested Pad Layout



(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)

Dimensions in inches and (millimeters)