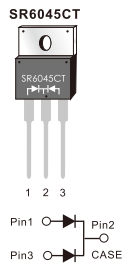
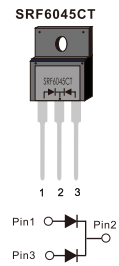
Schottky Barrier Rectifier

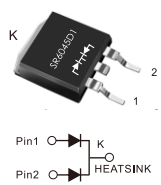
TO-220AB
SR6045CT



ITO-220AB
SRF6045CT



TO-263
SR6045D1



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℃（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 2011/65/EU

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	
$I_{F(AV)}$	2×30A
V_{RRM}	45V
I_{FSM}	300A
VF at I_F=30. 0A,Per leg	0. 56V
I_R	100μA
T_J(MAX)	150℃
Package	TO-220AB,ITO-220AB, TO-263
Diode variations	Common cathode

■Maximum Ratings (T_a=25℃ Unless otherwise specified)

Parameter		Symbol	Value	Unit
Maximum repetitive peak reverse voltage		V_{RRM}	45	V
Maximum average forward rectified current (see fig.1)	Per leg	$I_{F(AV)}$	30.0	A
	Total device		60.0	
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=2μs 1KHz		I_{RRM}	0.5	A
Operating junction and Storage temperature range		T_J ,Tstg	-55 to+150	℃
Isolation voltage (ITO-220AB only) from terminals to heatsink t=1 min		V_{AC}	1500	V

■Electrical Characteristcs (Ta=25℃ Unless otherwise specified)

Parameter	Test Conditions		Symbol	TYP.	MAX.	Unit
Instaneous forward voltage	Per leg IF=30.0A	TA=25℃	VF 1)	0. 56	0. 60	V
		TA=100℃		0. 52	–	
		TA=125℃		0. 50	–	
	Per leg IF=10.0A	TA=25℃		0. 40	–	
		TA=100℃		0. 36	–	
		TA=125℃		0. 35	–	
Reverse current	VR=45V	TA=25℃	IR 2)	100	200	μA
		TA=100℃		8	15	mA
		TA=125℃		20	50	
Typical junction capacitance	4V, 1MHz		CJ	930		pF

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

■Thermal Characteristics

Parameter	Symbol	TO-220AB	ITO-220AB	TO-263	Unit
Typical thermal resistance 3)	RθJC	2. 5	4. 5	2. 5	℃/W

3.Thermal resistance from junction to case

■Availabale Pack Information

Product code	Pack	Box Size L×W×H(mm)	Quantity(pcs/box)	Carton SizeL×W×H(mm)	Quantity(box/carton)
SR6045CT-TO-220AB	P/T	558×148×38	1000	565×225×170	5
SRF6045CT-ITO-220AB	P/T	558×148×38	1000	565×225×170	5
SR6045D1-TO-263	P/T	558×148×38	1000	565×225×170	5

■ Characteristics (Typical)

FIG.1-FORWARD CURRENT DERATING CURVE

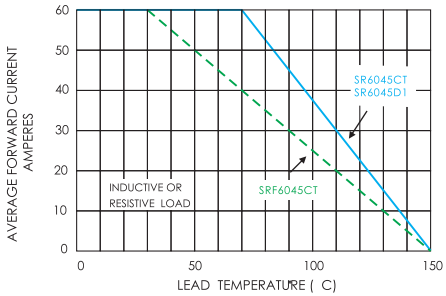


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

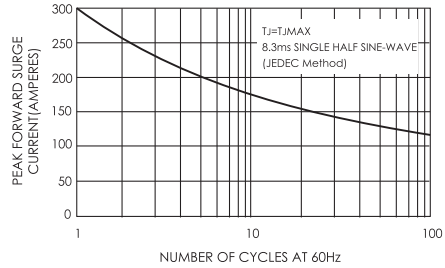


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

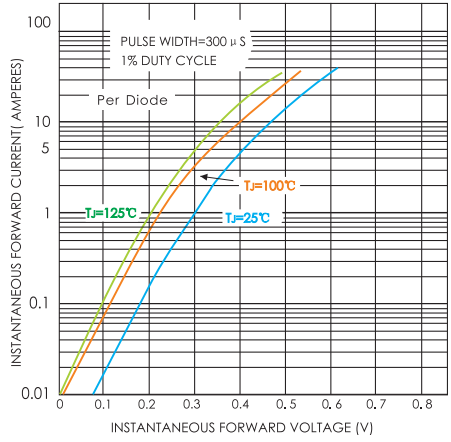


FIG.4-TYPICAL REVERSE CHARACTERISTICS

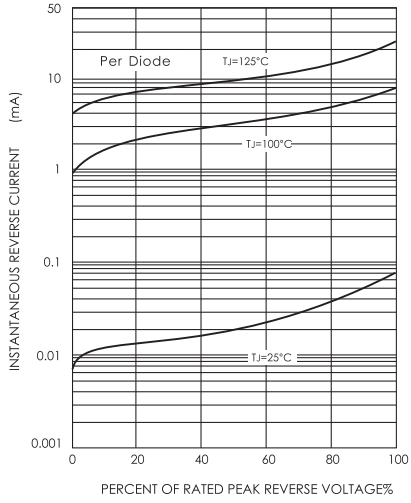
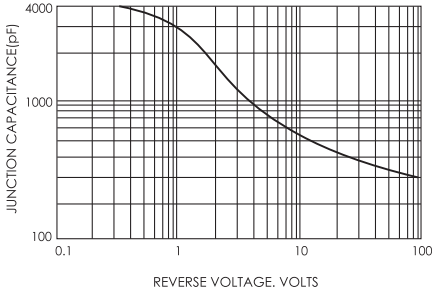
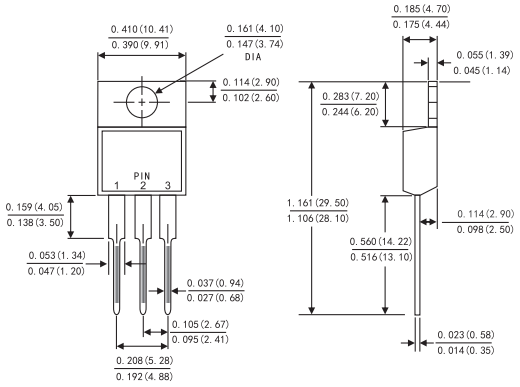


FIG.5-TYPICAL JUNCTION CAPACITANCE

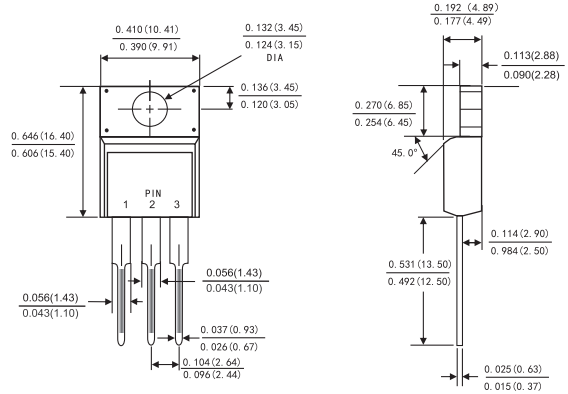


■ Outline Dimensions

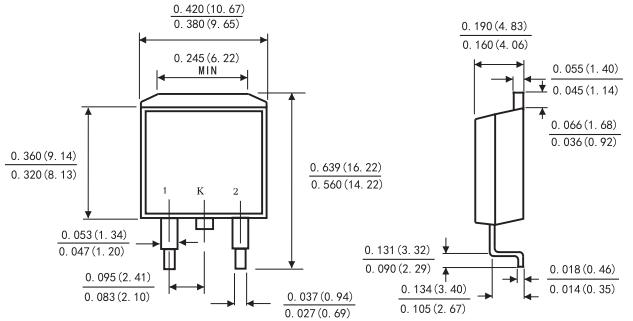
TO-220AB



ITO-220AB

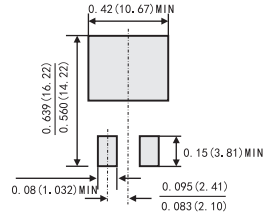


TO-263



Suggested Pad Layout

(TO-263)



Dimensions in inches and (millimeters)