

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- Dual rectifier construction
- High temperature soldering guaranteed:260 °C/10 seconds, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2015/863/EU

MECHANICAL DATA

- Case: JEDEC TO-220AB/ ITO-220AB/TO-263 molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked.
- Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

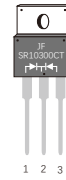
(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

Parameters	Symbols	Value				Units
Maximum repetitive peak reverse voltage	V_{RRM}	300				Volts
Maximum RMS voltage	V_{RMS}	210				Volts
Maximum DC blocking voltage	V_{DC}	300				Volts
Maximum average forward rectified current(see Fig.1)	I_{FAV}	10.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) Total device	I_{FSM}	150.0				Amps
Forward voltage at 5.0 A (Notes 1)	V_F	Typ.	0.85	Max.	0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Notes 1)	I_R	Typ.	/	Max.	5.0	uA
		Typ.	/	Max.	1.5	mA
Typical thermal resistance (Notes 2)	$R_{\theta JC}$	2.5				°C/W
Operating junction temperature range	T_J	-55 to+150				°C
Storage temperature range	T_{STG}	-55 to+150				°C

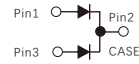
Notes: 1.Pulse test: 300µs pulse width,1% duty cycle
2.Thermal resistance from junction to case

TO-220AB

SR10300CT

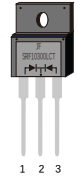


1 2 3

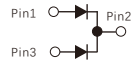


ITO-220AB

SRF10300CT



1 2 3



TO-263

SR10300D1

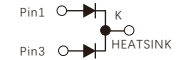
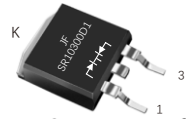


FIG.1-FORWARD CURRENT DERATING CURVE

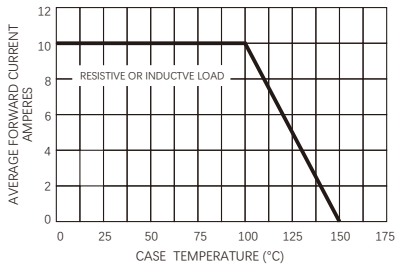


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

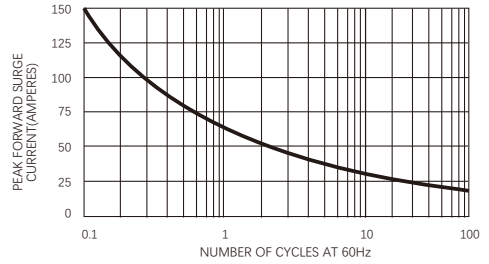


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

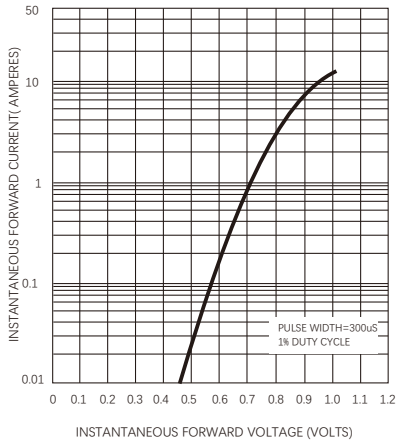
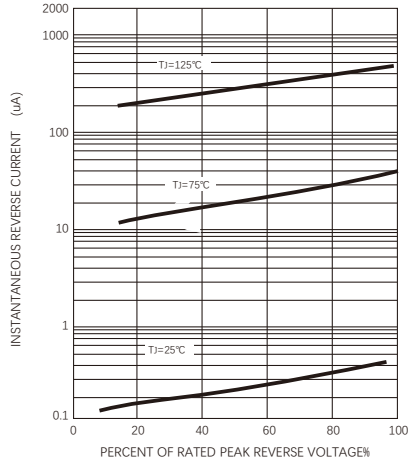
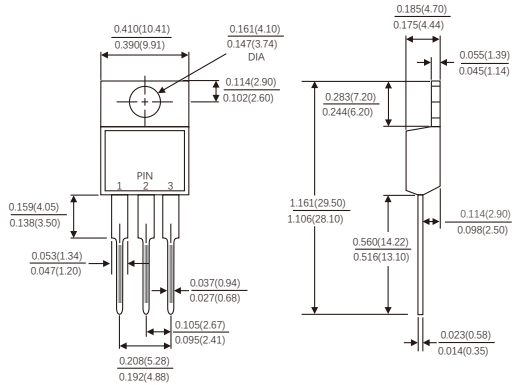


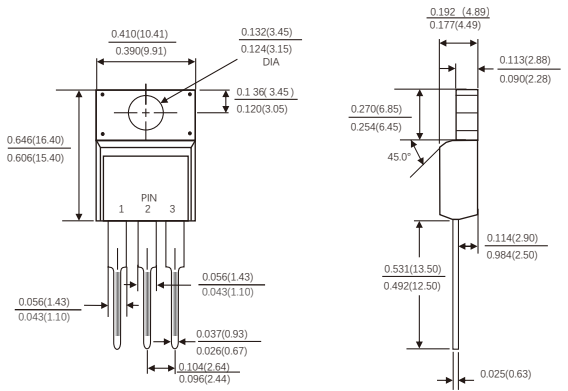
FIG.4-TYPICAL REVERSE CHARACTERISTICS



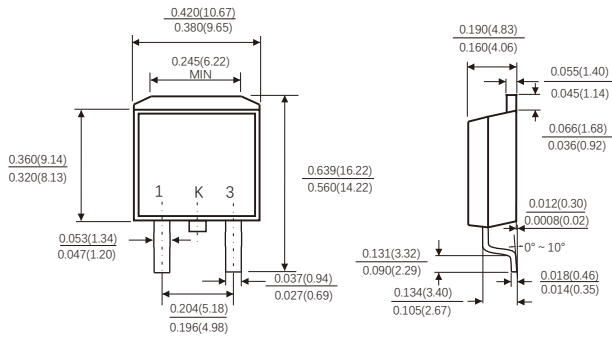
TO-220AB



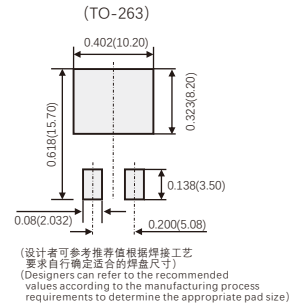
ITO-220AB



TO-263



Suggested Pad Layout



Dimensions in inches and (millimeters)

Friendship Reminder

- JiNan JingHeng (hereinafter referred to as JH) reserves the right to make changes to this document and its products and specifications at anytime without notice.
- Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.
- JH makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does JH assume any liability for application assistance or customer product design.
- JH does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.
- No license is granted by implication or otherwise under any intellectual property rights of JH.
- JH's products are not authorized for use as critical components in life support devices or systems without express written approval of JH.