SCHOTTKY BARRIER RECTIFIERS

VOLTAGE RANGE: 300V
CURRENT: 10 A

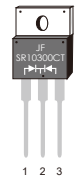
FEATURES

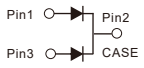
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low 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 2011/65/EU

MECHANICAL DATA

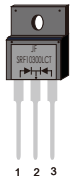
- Case: JEDECTO-220AB/ ITO-220AB/TO-263AB molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked.
- Mounting Position: Any

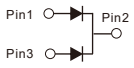
TO-220AB
MBR10300CT



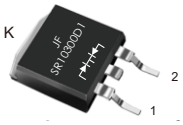


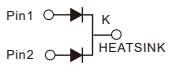
ITO-220AB
MBRF10300CT





TO-263AB
MBR10300D1





MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

		Symbols	SR10300CT, SRF10300CT, SR10300D1				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)		$I_{(AV)}$	10.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	150. 0				Amps
Forward voltage at 10.0 A (Notes 1)		V_F	TYP.	0. 90	MAX.	0. 975	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Notes 1)	T_A=25°C	I_R	TYP.	10	MAX.	50	μA
	T_A=125°C		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: 300 μ s pulse width,1% duty cycle
2.Thermal resistance from junction to case

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FIG.1-FORWARD CURRENT DERATING CURVE

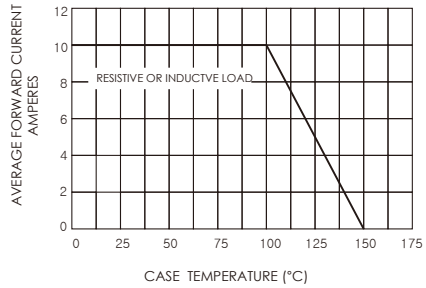


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

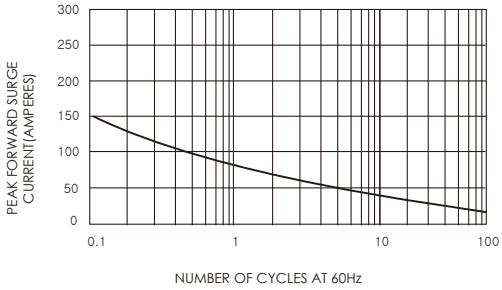


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

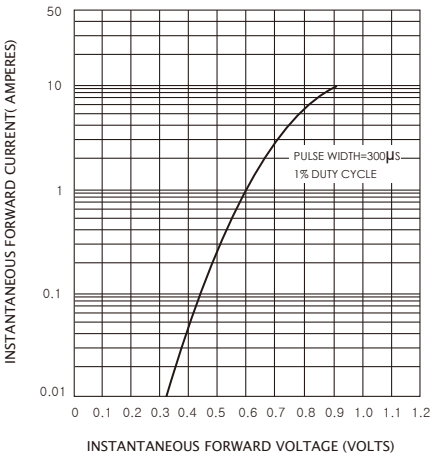
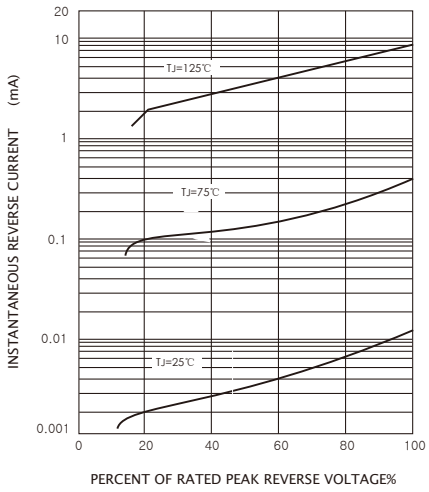


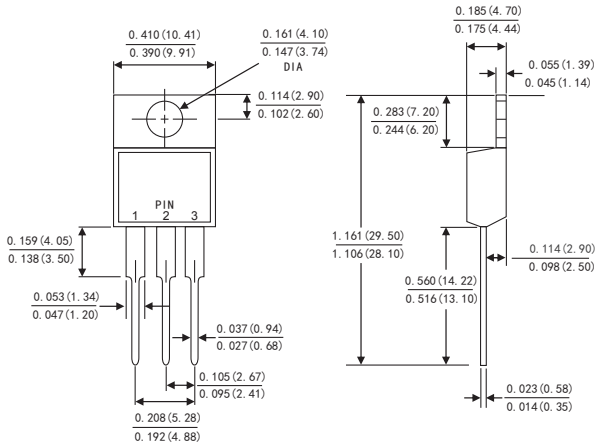
FIG.4-TYPICAL REVERSE CHARACTERISTICS



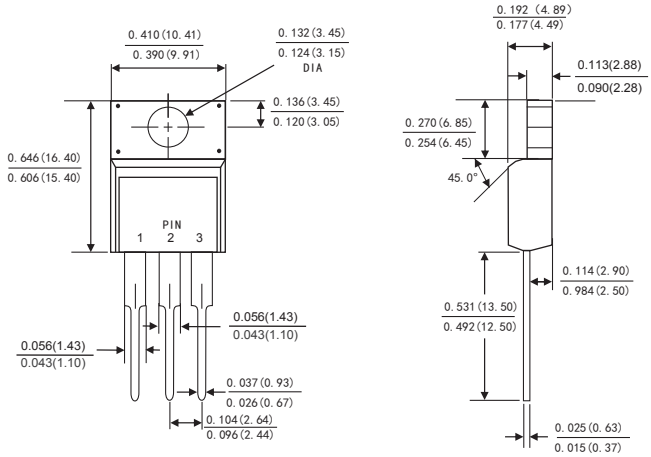
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PACKAGE OUTLINE DIMENSIONS

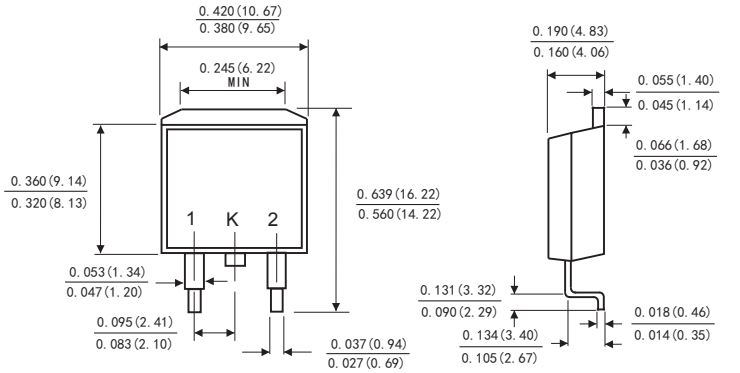
TO-220AB



ITO-220AB

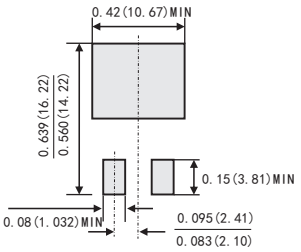


TO-263



Suggested Pad Layout

（TO-263）



Dimensions in inches and (millimeters)

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