

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE RANGE: 300V
CURRENT: 10 A

FEATURES

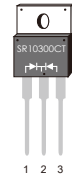
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low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

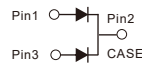
- Case: JEDECTO-220AB/ ITO-220AB/TO-263AB molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked.
- Mounting Position: Any

TO-220AB

MBR10300CT

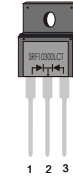


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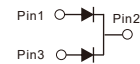


ITO-220AB

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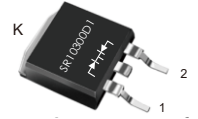


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TO-263AB

MBR10300D1



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%.)

		Symbols	SR10300CT, SRF10300CT, SR10300D1				Units
Maximum repetitive peak reverse voltage		VRRM	300				Volts
Maximum RMS voltage		VRMS	210				Volts
Maximum DC blocking voltage		VDC	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)		IFSM	150.0				Amps
Forward voltage at 10.0 A (Notes 1)		VF	TYP.	0.90	MAX.	0.975	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Notes 1)	TA=25°C	IR	TYP.	10	MAX.	50	μA
	TA=125°C		TYP.	/	MAX.	1.5	mA
Typical thermal resistance (Notes 2)		RθJC	2.5				°C/W
Operating junction temperature range		TJ	-55 to+150				°C
Storage temperature range		TSTG	-55 to+150				°C

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

FIG.1-FORWARD CURRENT DERATING CURVE

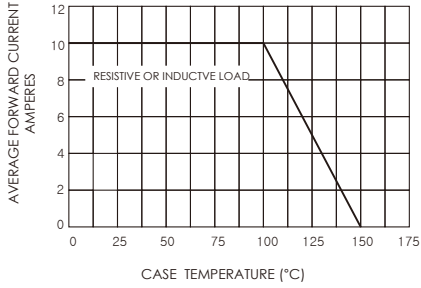


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

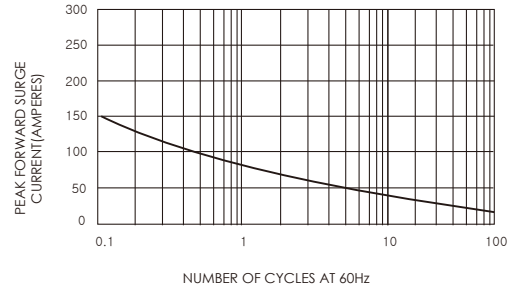


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

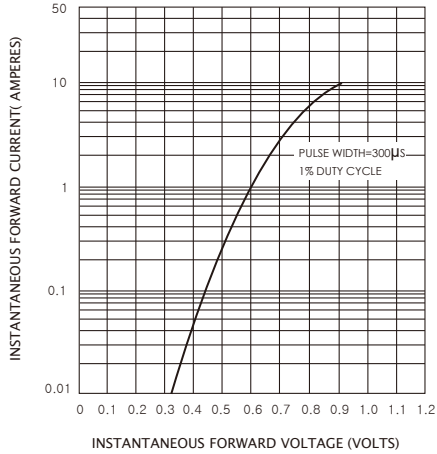
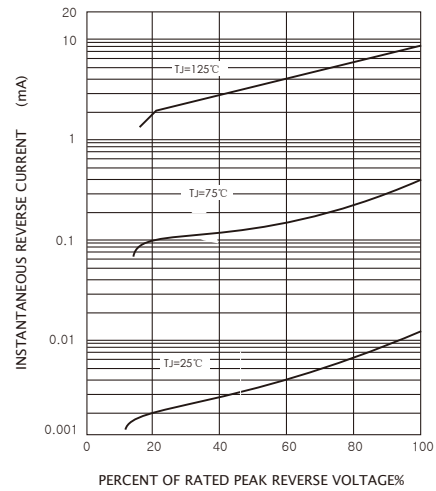
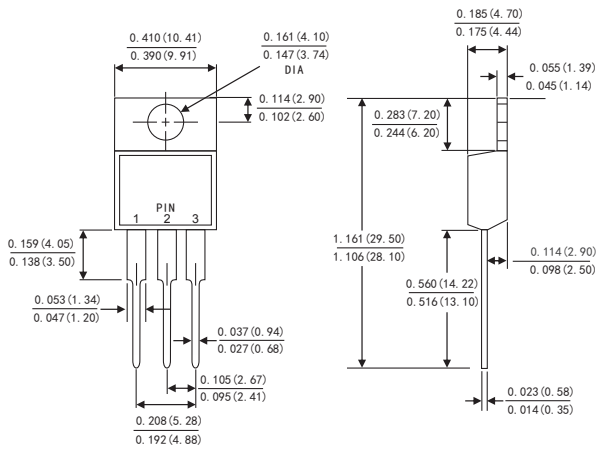


FIG.4-TYPICAL REVERSE CHARACTERISTICS

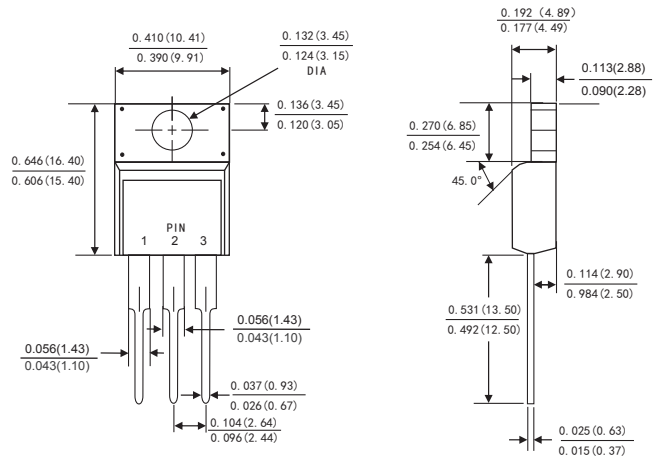


PACKAGE OUTLINE DIMENSIONS

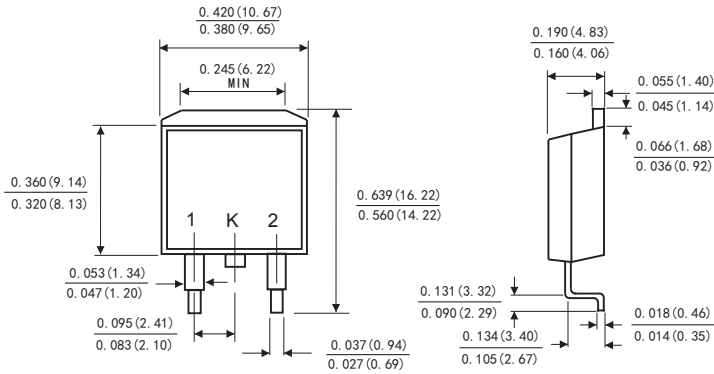
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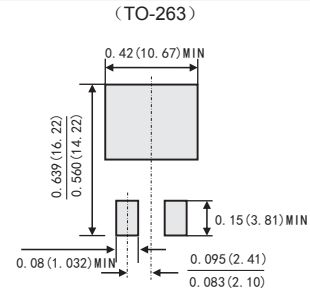
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TO-263



Suggested Pad Layout



Dimensions in inches and (millimeters)