

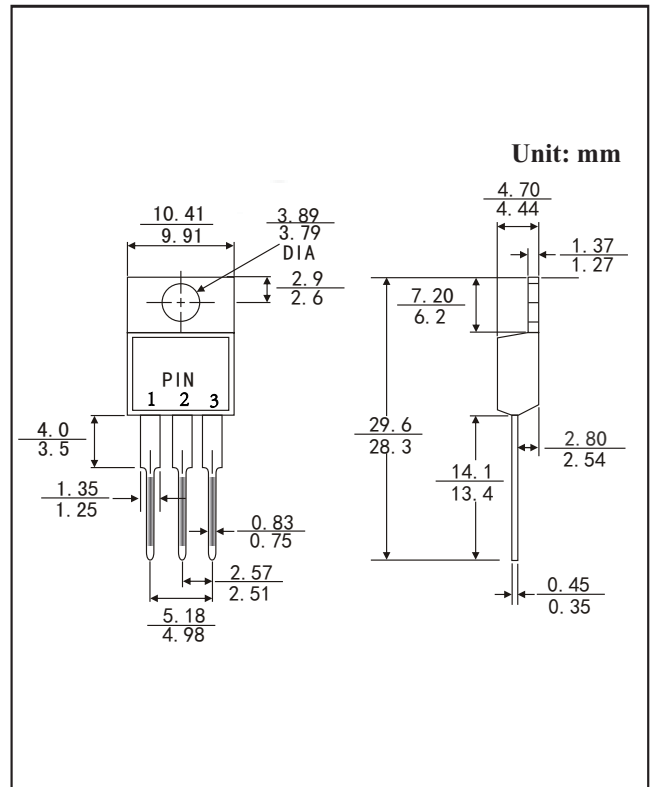
TO-220AB PLASTIC SILICON RECTIFIERS

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
- Single rectifier construction,High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260 °C/10 seconds at terminals
- Component in accordance to RoHS 2015/863 and WEEE 2012/19/EU

MECHANICAL DATA

- Case: TO-220AB molded plastic body
- Terminals:Lead solderable per MIL-STD-750,method 2026
- Polarity:Color band denotes cathode end



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

TYPE NUMBER	SYMBOL	MBR	MBR	MBR	MBR	MBR	MBR	MBR	MBR	UNITS
		1020CT	1030CT	1045CT	1050CT	1060CT	1080CT	10100CT	10200CT	
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	45	50	60	80	100	200	V
Maximum RMS voltage	V_{RMS}	14	21	31	35	42	56	70	140	V
Maximum DC blocking voltage	V_{DC}	20	30	45	50	60	80	100	200	V
Maximum Average Forward rectified Current 0.375"(9.5mm) lead length	$I_{F(AV)}$	5.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150.0								A
Maximum instantaneous forward voltage at 10.0 A (Note 1)	V_F	0.60		0.75		0.85		0.95		V
Maximum reverse current at rated DC blocking voltage per diode	@ $T_A=25^\circ C$	0.2								mA
	@ $T_A=120^\circ C$	15				50				
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	2.5								°C/W
Storage Temperature	T_{STG}	- 65 ---- + 150								°C
Operation Junction Temperature	T_j	- 65 ---- + 125								°C

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

2.Thermal resistance from junction to case.

RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

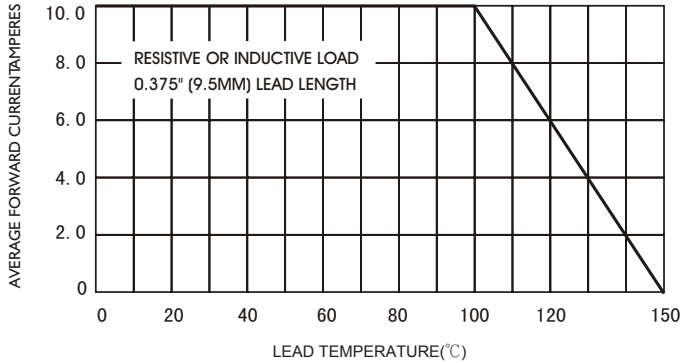


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

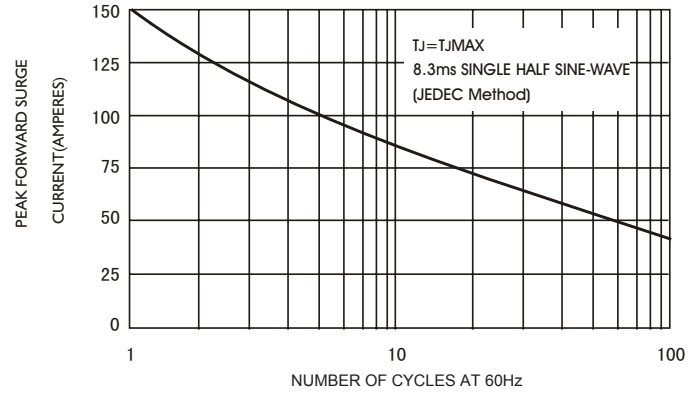


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

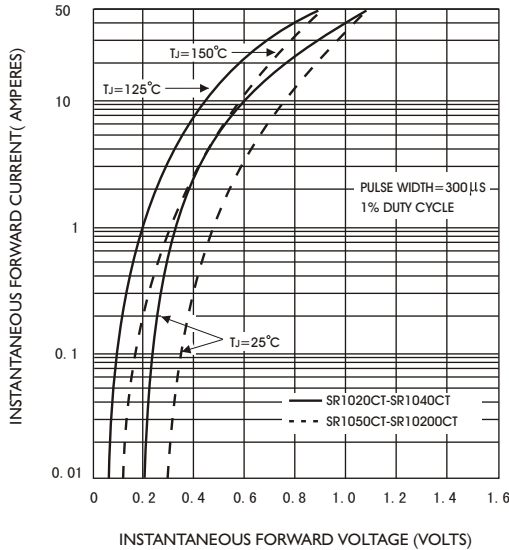


FIG.4 -TYPICAL REVERSE CHARACTERISTICS

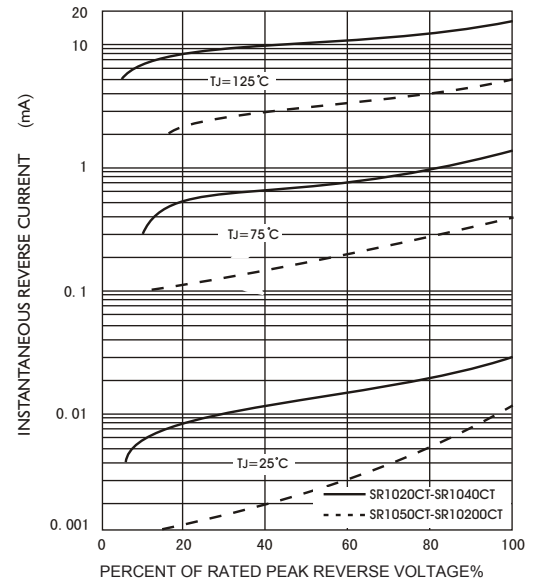


FIG.5-TYPICAL JUNCTION CAPACITANCE

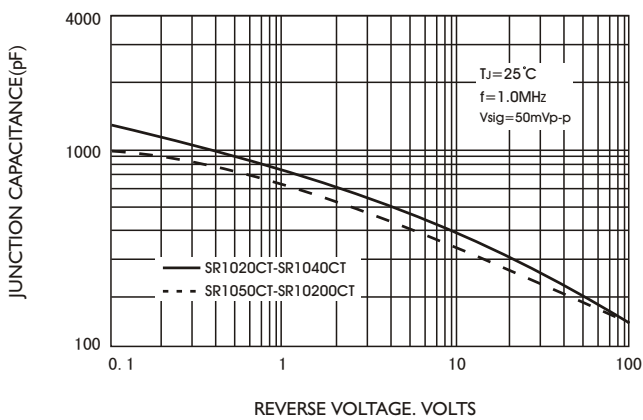


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

