CE

CHENYI ELECTRONICS

SR820 THRU SR8A0(SINGLE CHIP)

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts

Forward Current - 8.0Amperes

FEATURES

. Plastic package has Underwriters Laboratory Flammability Classification 94V-0

. Metal sliicon junction ,majority carriet conduction

. Guard ring for overcoltage 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 polarilty protection applications

. High temperature soldering guaranteed: 250℃/10 seconds 0.25"(6.35mm)from case

MECHANICAL DATA

. **Case:** JEDEC DO-220AC molded plastic body

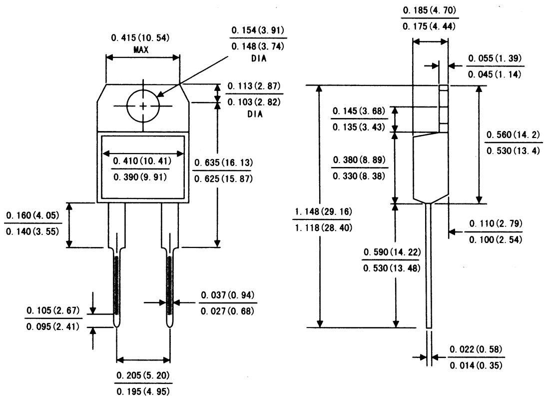
. **Terminals:** lead solderable per MIL-STD-750,method 2026

. **Polarity:** As marked

. **Mounting Position:** Any

. **Weight**: 0.08 ounce, 2.24 gram

TO-220AC



Dimensions in inches and (millimeters)

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	SR820	SR830	SR840	SR850	SR860	SR880	SR8A0	Units
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	57	71	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	Volts
Macimum average forward rectified current(see Fig.1)	$I_{(AV)}$	8.0							Amps
Repetitive peak forward current(square wavr, 20KHz) at Tc=105℃	I_{FRM}	16.0							Amps
Peak forward surge current 8.3ms singel half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150.0							Amps
Maximum instantaneous forward voltage at 7.5 A(Note 1)	V_F	0.65			0.75		0.8	0.85	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) TA=25℃	I_R	1.0							mA
TA=125℃		15			50				
Typeical thermal resistance(Note 2)	$R_{\theta JC}$	2.5							℃/W
Operating junction temperature range	T_J	-65 to +150			-65 to +150				℃
storage temperature range	T_{STG}	-65 to +150							℃

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

2.Thermal resistance from juntion to case

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RATINGS AND CHARACTERISTIC CURVES SR820 THRU SR8A0(SINGLE CHIP)

FLG.1-FORWARD CURRENT DERATING CURVE

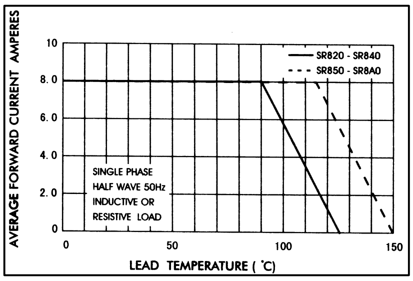

FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

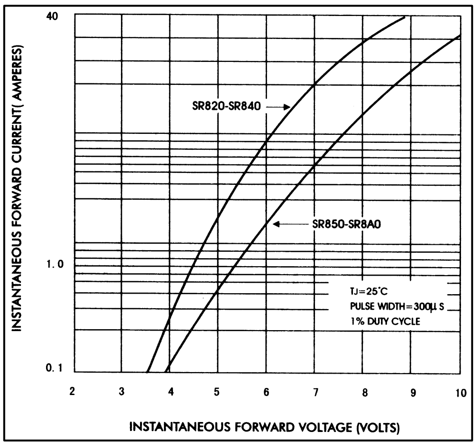

FIG.4-TYPICAL JUNCTION CAPACITANCE

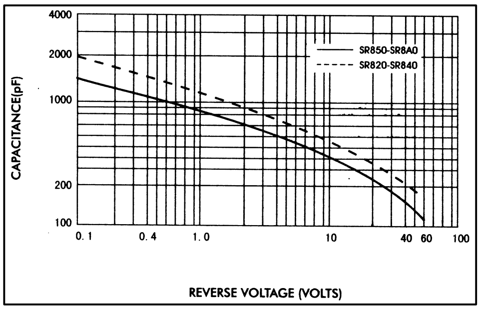

FIG.3-TYPICAL REVERSE CHARACTERISTICS

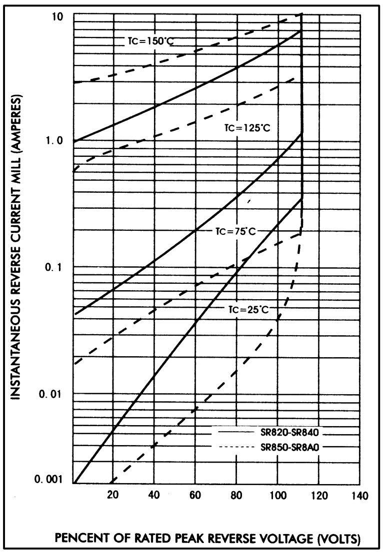

FIG.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT