

SR720 THRU SR7200 (SINGLE CHIP)



SEMICONDUCTOR

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 Volts

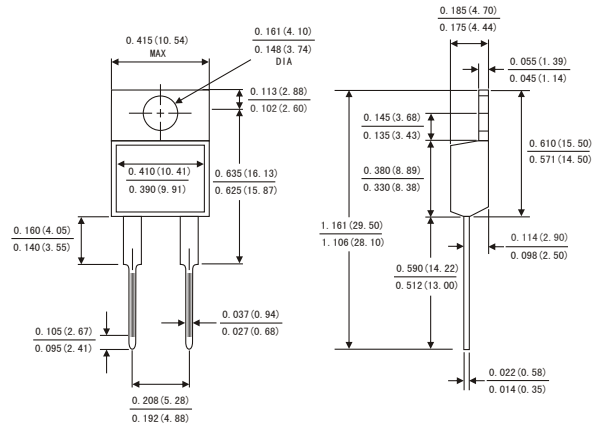
Forward Current - 7.5Amperes

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, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



TO-220AC



MECHANICAL DATA

- Case: JEDEC TO-220AC molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked
- Mounting Position: Any
- Weight: 0.08ounce, 2.24 gram

Dimensions in inches and (millimeters)

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	SR 720	SR 730	SR 740	SR 750	SR 760	SR 780	SR 7A0	SR 7150	SR 7200	Units		
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	Volts		
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	57	71	105	140	Volts		
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	Volts		
Maximum average forward rectified current (see fig.1)	$I_{(AV)}$	7.5									Amps		
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150.0									Amps		
Maximum instantaneous forward voltage at 7.5 A(Notes 1)	V_F	0.60			0.75		0.85		0.90	0.95	Volts		
Maximum instantaneous reverse current at rated DC blocking voltage(Notes 1)	$T_a = 25^\circ\text{C}$	IR									0.5		mA
	$T_a = 125^\circ\text{C}$										15		
Typical thermal resistance (Note 2)	$R_{\theta JC}$	2.5									°C/W		
Operating junction temperature range	T_J	-65 to +125				-65 to +150						°C	
Storage temperature range	T_{STG}	-65 to +150									°C		

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

2.Thermal resistance from junction to case

RATINGS AND CHARACTERISTIC CURVES SR720THRU SR7200(SINGLE CHIP)

FIG.1-FORWARD CURRENT DERATING CURVE

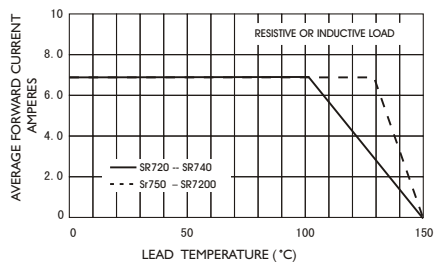


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

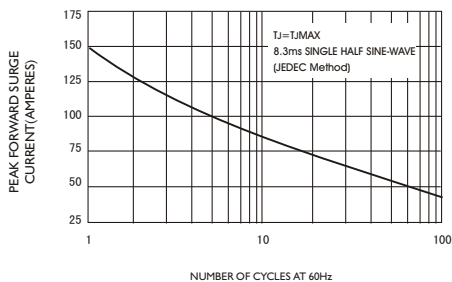


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

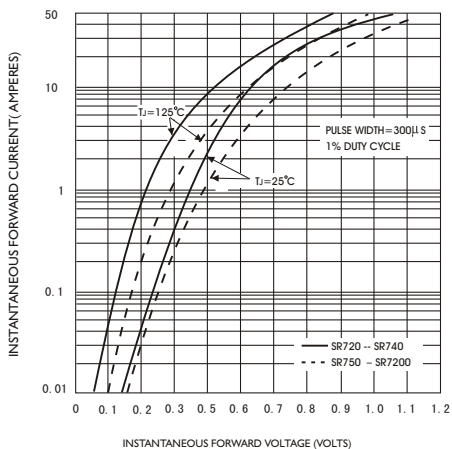


FIG.4-TYPICAL REVERSE CHARACTERISTICS

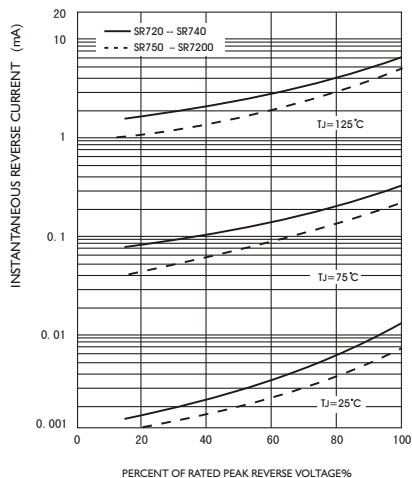


FIG.5-TYPICAL JUNCTION CAPACITANCE

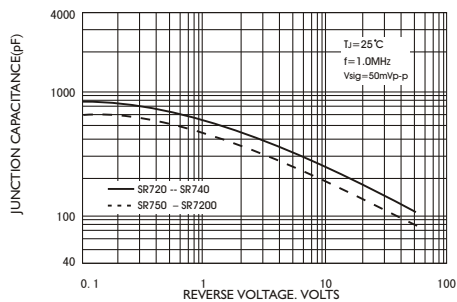


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

