



SRF735 THRU SRF760 (SINGLE CHIP)

7.5 AMPS. SCHOTTKY BARRIER RECTIFIERS

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V – O
- 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: 250°C/10 seconds,
- 0.25" (6.35mm) from case

MECHANICAL DATA

- Case: JEDEC ITO – 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

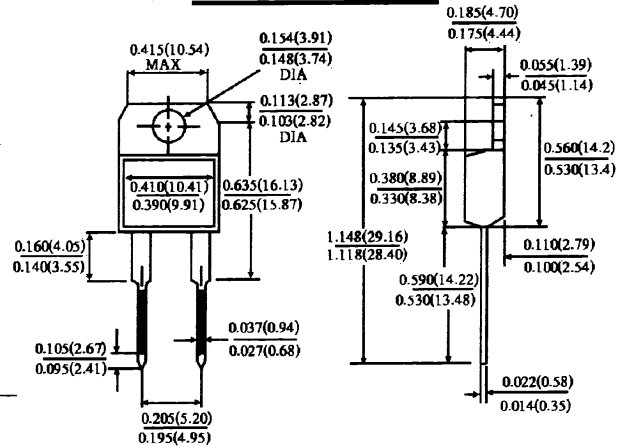
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	Symbols	SRF735	SRF745	SRF750	SRF760	Units
Maximum repetitive peak reverse voltage	V_{RRM}	35	45	50	60	Volts
Maximum RMS voltage	V_{RMS}	25	32	35	42	Volts
Maximum DC blocking voltage	V_{DC}	35	45	50	60	Volts
Maximum average forward rectified current (see Fig. 1)	$I_{(AV)}$	7.5				Amps
Repetitive peak forward current (square wave, 20KHZ) at $T_c = 105^\circ\text{C}$	I_{FRM}	15.0				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 (Note 1)	V_F	0.65		0.75		Volts
Maximum instantaneous reverse current at rated DC blocking voltage (Note 1)	I_R	$T_A = 25^\circ\text{C}$	1.0			mA
		$T_A = 125^\circ\text{C}$	15		50	
Typical thermal resistance (Note 2)	$R_{\theta JC}$	5.0				°C/w
Operating junction temperature range	T_J	– 65 to + 150				°C
Storage temperature range	T_{STG}	– 65 to + 150				°C

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

1TO-220AC



RATINGS AND CHARACTERISTIC CURVES (SRF735 THRU SRF760)

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FIG. 1 - FORWARD CURRENT DERATING CURVE

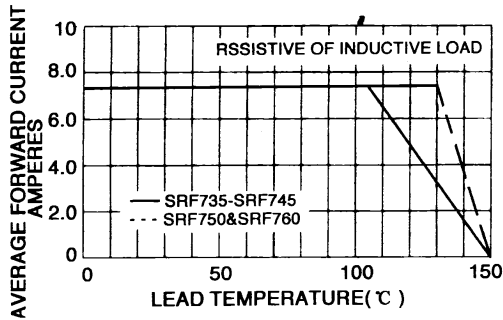


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

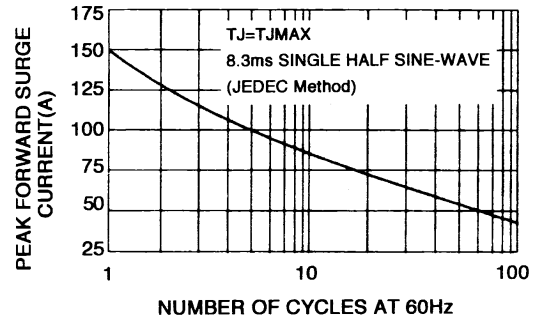


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

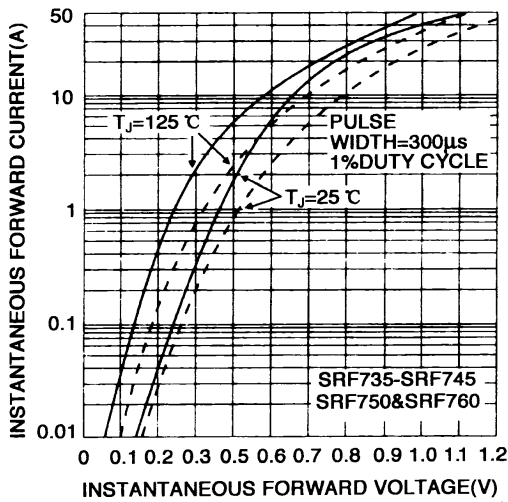


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

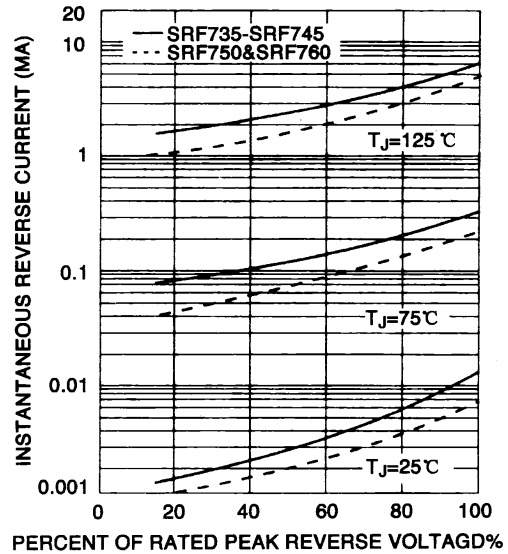


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

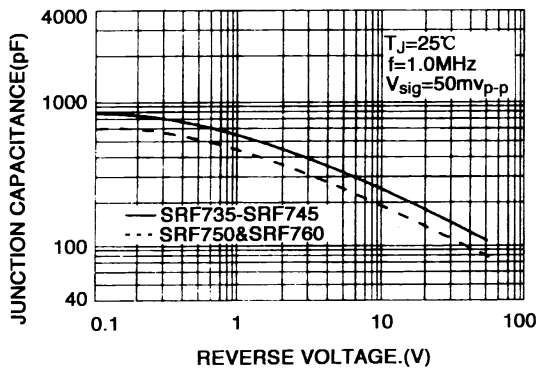


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

