

FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
260°C/10 seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: JEDEC DO-41 molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.012 ounce, 0.33 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

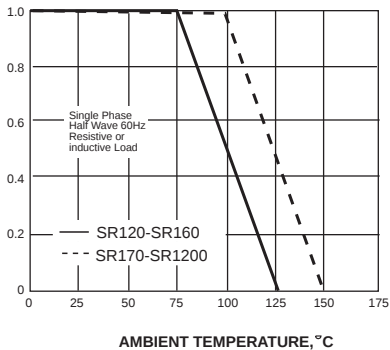
	SYMBOLS	SR 120	SR 130	SR 140	SR 150	SR 160	SR 170	SR 180	SR 190	SR 1100	SR 1150	SR 1200	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	70	80	90	100	150	200	VOLTS
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	49	56	63	70	105	140	VOLTS
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	70	80	90	100	100	200	VOLTS
Maximum average forward rectified current 0.375”(9.5mm) lead length(see fig.1)	I _(AV)	1.0											Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30.0											Amps
Maximum instantaneous forward voltage at 1.0A	V _F	0.55		0.70		0.85					0.95	Volts	
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C	I _R	0.5					0.2		mA				
		10.0			5.0								
Typical junction capacitance (NOTE 1)	C _J	220		80									pF
Typical thermal resistance (NOTE 2)	R _{θJA}	50.0											°C/W
Operating junction temperature range	T _J	-65 to +125					-65 to +150					°C	
Storage temperature range	T _{STG}	-65 to +150											°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,
AMPERES

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

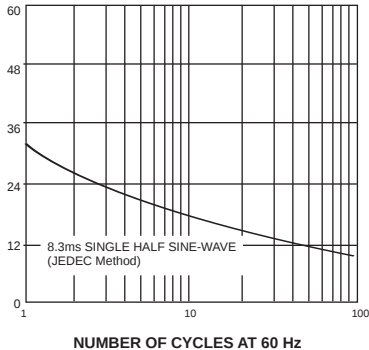
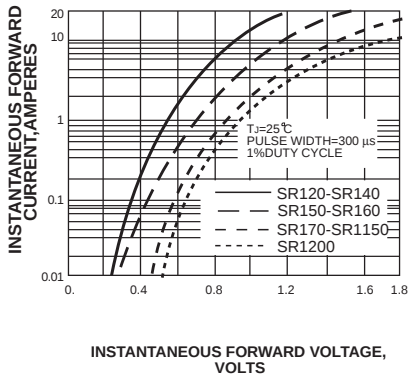


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

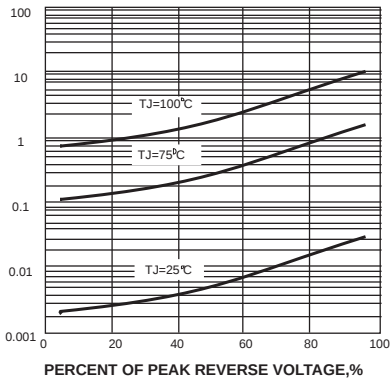
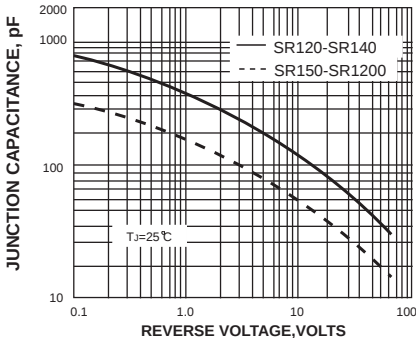


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,
 $^\circ\text{C}/\text{W}$

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

