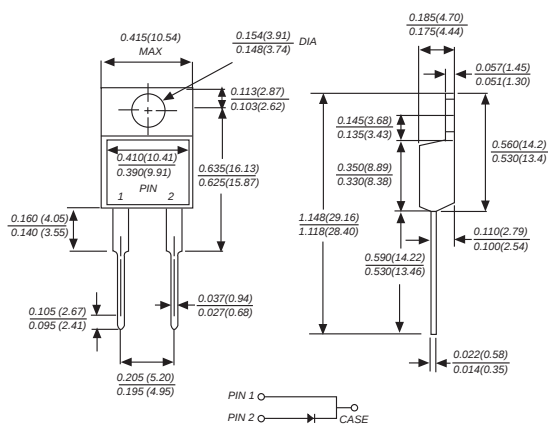


SR1020 THRU SR10A0

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts Forward Current - 10.0 Amperes

TO-220AC



Dimensions in inches and (millimeters)

FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
260°C, 0.25" (6.35mm) from case for 10 seconds

MECHANICAL DATA

Case: TO-220AC molded plastic body
Terminals: Leads solderable per MIL-STD-750, Method 2026
Polarity: As marked
Mounting Position: Any
Weight: 0.064 ounce, 1.81 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 1020	SR 1030	SR 1040	SR 1045	SR 1050	SR 1060	SR 1070	SR 1080	SR 1090	SR 10A0	UNITS	
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	45	50	60	70	80	90	100	VOLTS	
Maximum RMS voltage	V _{RMS}	14	21	28	32	35	42	49	56	63	70	VOLTS	
Maximum DC blocking voltage	V _{DC}	20	30	40	45	50	60	70	80	90	100	VOLTS	
Maximum average forward rectified current (see fig.1)	I _(AV)	10.0										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 10.0A	V _F	0.65				0.75		0.85				Volts	
Maximum DC reverse current TA=25°C	I _R	1.0											mA
at rated DC blocking voltage TA=100°C		15.0				50.0							
Typical junction capacitance (NOTE 1)	C _J	550				450				pF			
Typical thermal resistance (NOTE 2)	R _{θJC}	3.0											°C/W
Operating junction temperature range	T _J	-65 to +125					-65 to +150					°C	
Storage temperature range	T _{STG}	-65 to +150											°C

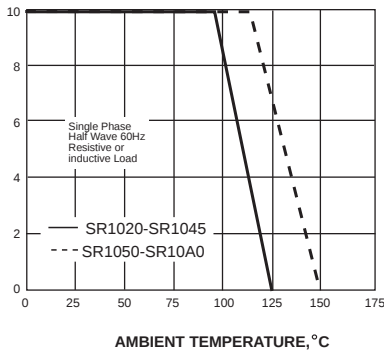
Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to case

RATINGS AND CHARACTERISTIC CURVES SR1020 THRU SR10A0

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

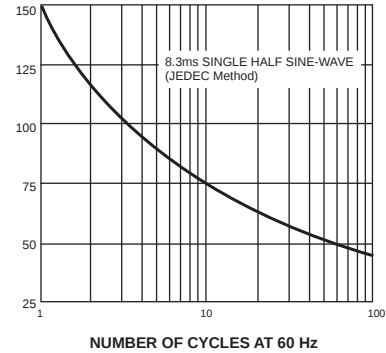
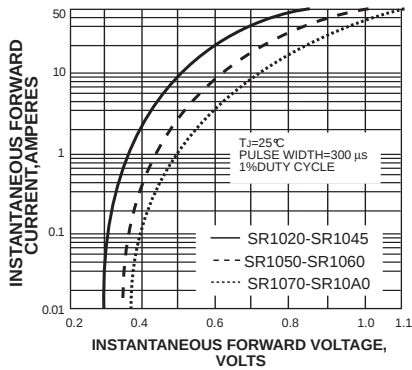


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

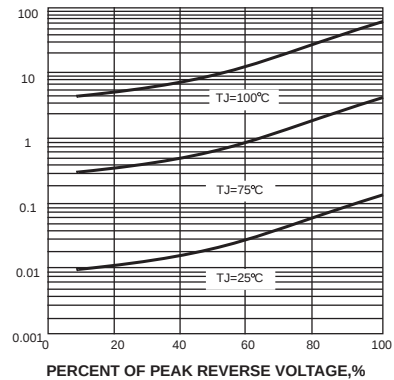
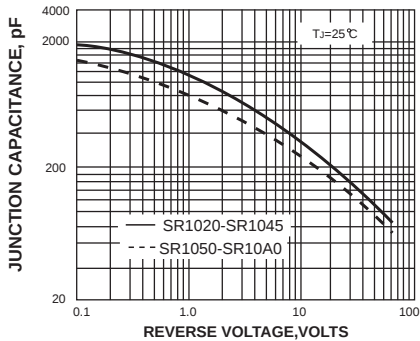


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

