

SR120 THRU SR1A0

SCHOTTKY BARRIER RECTIFIER

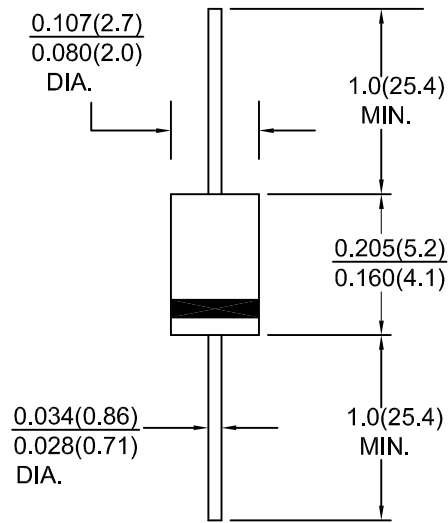
FEATURES:

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Guard ring for overvoltage protection
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering:
250°C / 10 second at terminals, 0.375" (9.5mm) lead length, 5lbs, (2.3kg) tension

MECHANICAL DATA

Case: JEDEC DO-41 molded plastic
 Terminals: Plated axial lead, solderable per MIL-STD-750, Method 2026
 Polarity: Color band denotes cathode end
 Standard Packaging: Any
 Weight: 0.012 ounces, 0.033 grams

DO-204AL (DO-41)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25° C ambient temp. unless otherwise specified.
 Single phase, half sine wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20 %.

Characteristic	Symbol	SR 120	SR 130	SR 140	SR 150	SR 160	SR 180	SR 1A0	Units
Maximum recurrent peak reverse voltage	V _{RRM}	20	30	40	50	60	80	100	Volts
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	56	70	Volts
Maximum DC voltage	V _{DC}	20	30	40	50	60	80	100	Volts
Maximum average forward rectified current at 0.375" (9.5mm) lead length (See fig. 1)	I _(AV)	1.0							Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30							Amps
Maximum instantaneous forward voltage drop per leg at 1.0A (NOTE 1)	V _F	0.55		0.70		0.85		Volts	
Maximum instantaneous reverse current at rated DC blocking voltage (NOTE 1)	I _R	0.5 10							mA
Typical thermal resistance (NOTE 3)	R _{th JA} R _{th JL}	50.0 15.0							°C/W
Operating Junction temperature range	T _J	-55 to +125			-55 to +150				°C
Operating Junction and storage temperature range	T _{stg}	-55 to +150							°C

NOTE : 1. Pulse test : 300us width, 1% duty cycle:
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts
 3. Thermal resistance from junction to lead .and/or to ambient P.C.B mounted with 0.375" (9.5mm) lead length with 1.5X1.5" (38X38mm) copper pads

RATINGS AND CHARACTERISTIC CURVES SR120 THRU SR1A0

FIG.1 - MAXIMUM FORWARD CURRENT DERATING CURVE

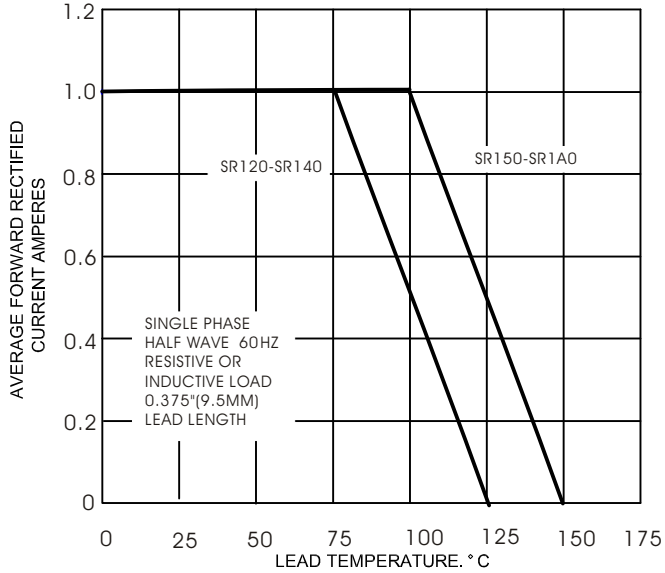


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

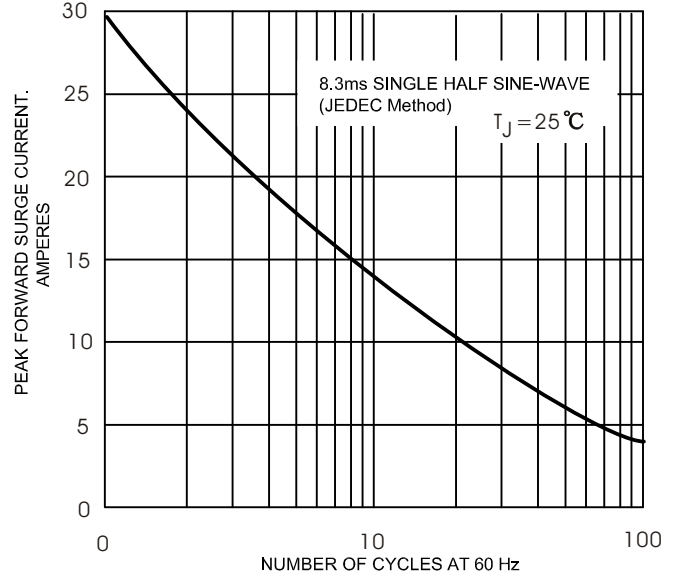


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

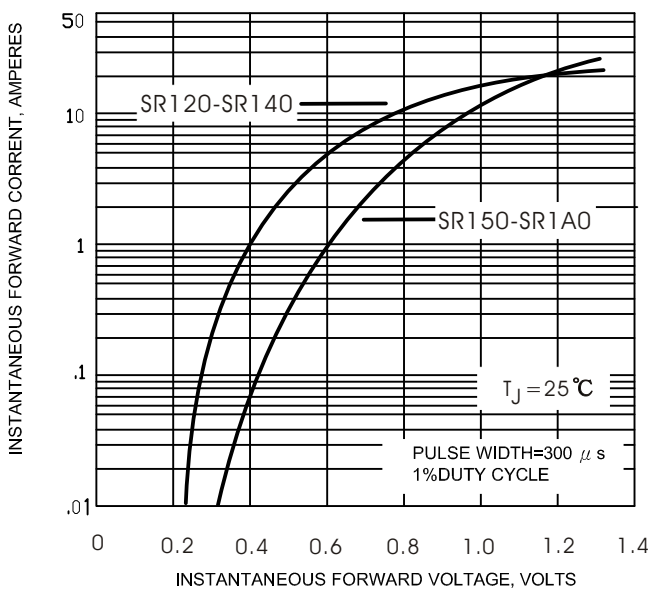


FIG.4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

