

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 volts

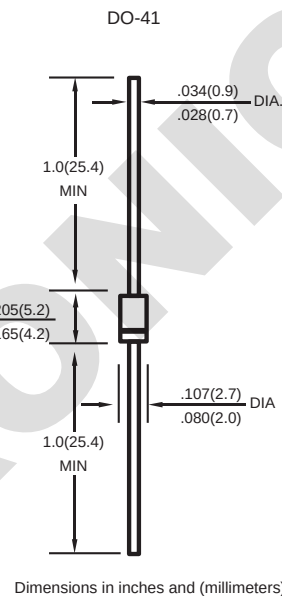
Forward Current - 1.0Ampere

FEATURES

- Plastic package has Underwriters Laboratory 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
- 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 at terminals, 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, 0.33gram



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 120	SR 130	SR 140	SR 150	SR 160	SR 180	SR 1A0	UNITS
Maximum Repetitive Peak Reverse Voltage		V _{RRM}	20	30	40	50	60	80	100	Volts
Maximum RMS Voltage		V _{RMS}	14	21	28	35	42	57	71	Volts
Maximum DC Blocking Voltage		V _{DC}	20	30	40	50	60	80	100	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}	40							Amps
Maximum Instantaneous Forward Voltage at1.0A		V _F	0.55			0.70		0.75	0.83	Volts
Maximum DC Reverse Current at rated DC blocking voltage(NOTE1)	T _A =25 ^o C	I _R	0.5							mA
	T _A =100 ^o C		10							
Typical Junction Capacitance(NOTE3)		C _J	110							pF
Typical Thermal Resistance(NOTE2)		R _{θJA} R _{θJL}	50 15							°C/W
Operating Temperature Range		T _J	-65 to +125				-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 Ambient) Vertical P.C.B. Mounted with 1.5X1.5" (38X38mm) copper pads.
3. Measured at 1MHz and reverse voltage of 4.0volts.

FIG.1-FORWARD CURRENT DERATING CURVE

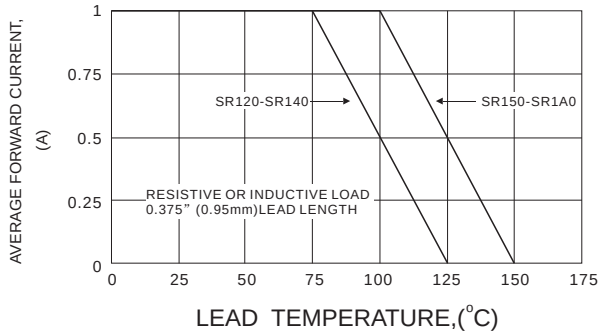


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

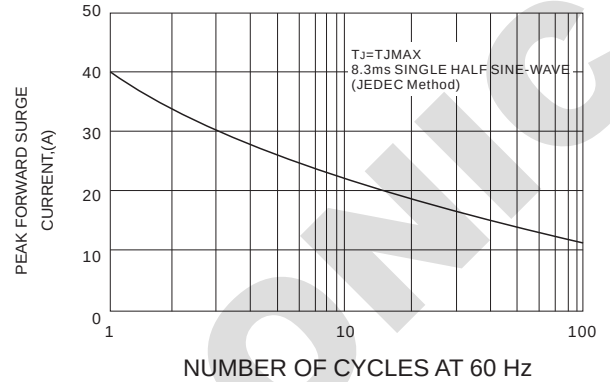


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

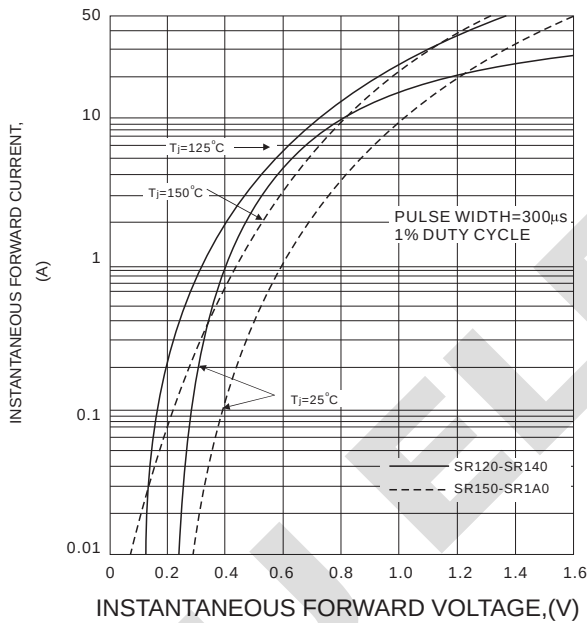


FIG.4-TYPICAL REVERSE CHARACTERISTICS

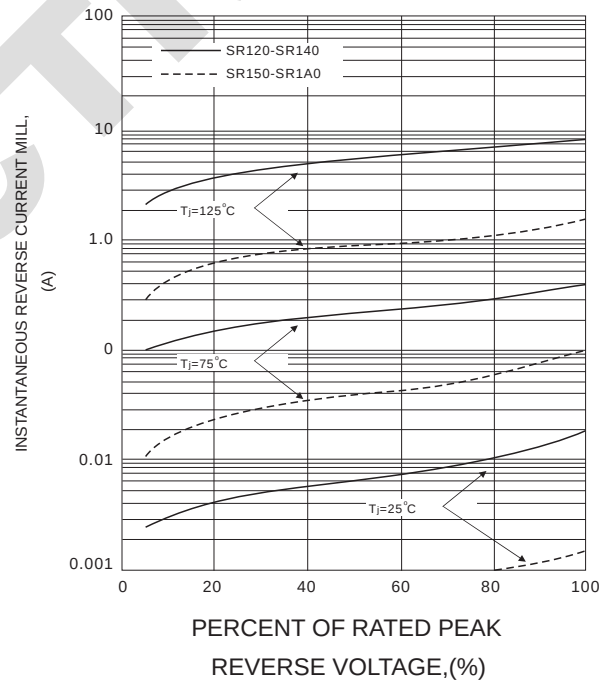


FIG.5-TYPICAL JUNCTION CAPACITANCE

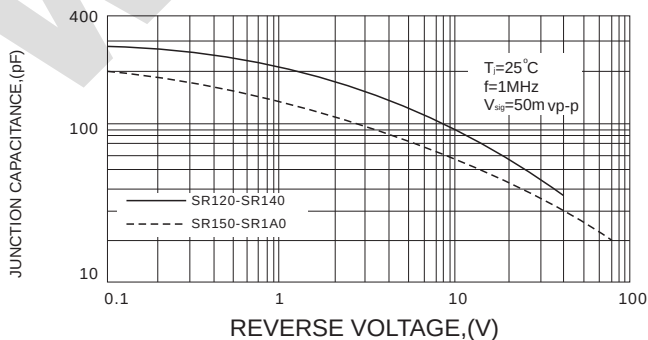


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

