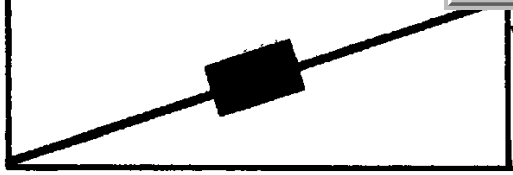
SR3001 thru SR3007



VOLTAGE RANGE
50 to 1000 Volts
CURRENT
3.0 Amperes

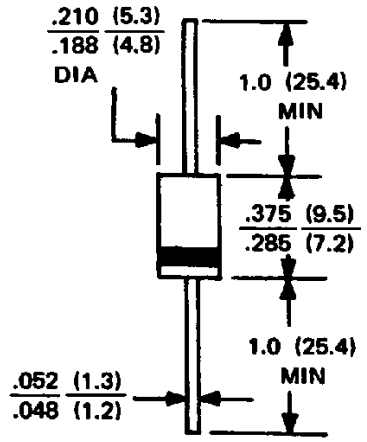
FEATURES

- Low cost
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with Freon, Alcohol, Chlorothene and similar solvents
- The plastic material carries U/L recognition 94V-O

MECHANICAL DATA

Case: JEDEC DO-201 AD molded plastic
Terminals: Plated axial leads, solderable per MIL-STD-202, Method 208
Polarity: Color band denotes cathode
Weight: 0.04 ounce, 1.1 grams
Mounting position: Any

DO-201AD



Dimensions in inches and (millimeters)

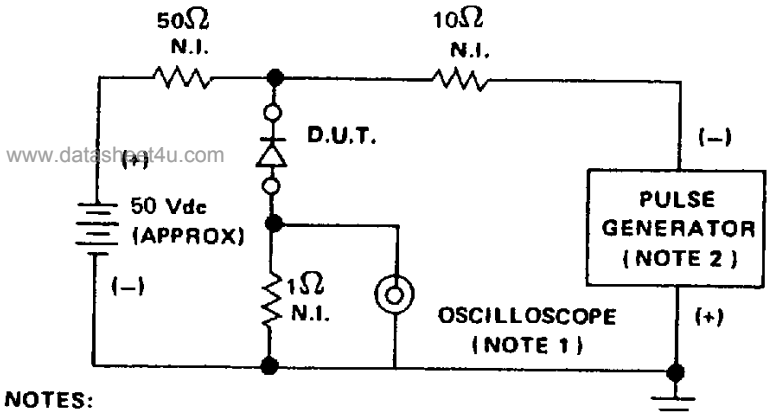
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

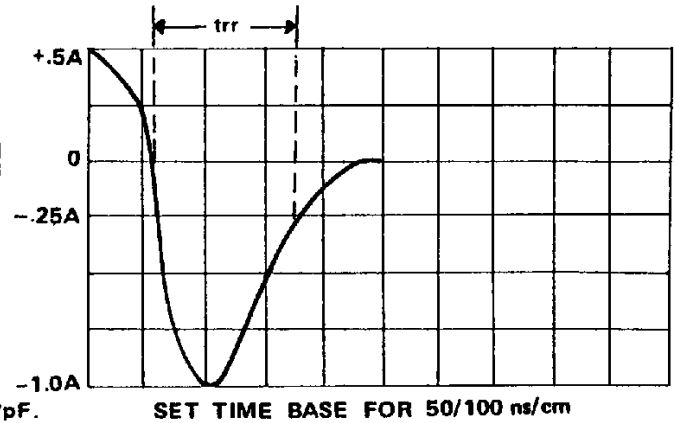
Ratings at 25° C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load,
For capacitive load, derate current by 20%.

		SR3001	SR3002	SR3003	SR3004	SR3005	SR3006	SR3007	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Lengths @ T_A = 50°C	$I_{(AV)}$	3.0							A
Peak Forward Surge Current 8.3 ms single half-sine-wave superimposed on rated load	I_{FSM}	150							A
Maximum Forward Voltage at 3.0A DC	V_F	1.2							V
Maximum DC Reverse Current @T_A = 25°C	I_R	10							uA
at Rated DC Blocking Voltage @TA = 100°C		150		200	250	300			uA
Maximum Reverse Recovery Time (Note 1)	tRR	150				200		300	ns
Typical Junction Capacitance (Note 2)	C_J	50				25			pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	28							°C/W
Operating Temperature Range	T_J	–65 to + 150							°C
Storage Temperature Range	T_{STG}	– 65 to + 175							°C

NOTES: 1. Measured with IF = 0.5A, IR = 1 A, Irr = 0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC
3. Thermal Resistance Junction to Ambient.

FIG. 1– REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM





SET TIME BASE FOR 50/100 ns/cm

NOTES:
1. RISE TIME = 7n SEC MAX, INPUT IMPEDANCE = 1 MEGOHM, 22pF.
2. RISE TIME = 10n SEC MAX, SOURCE IMPEDANCE = 50 OHM,

FIG. 2 – FORWARD DERATING CURVE

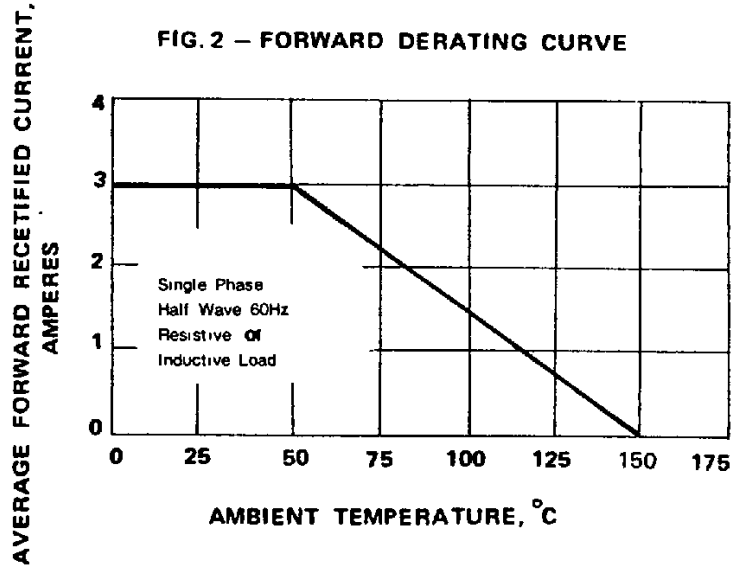


FIG. 3– PEAK FORWARD SURGE CURRENT

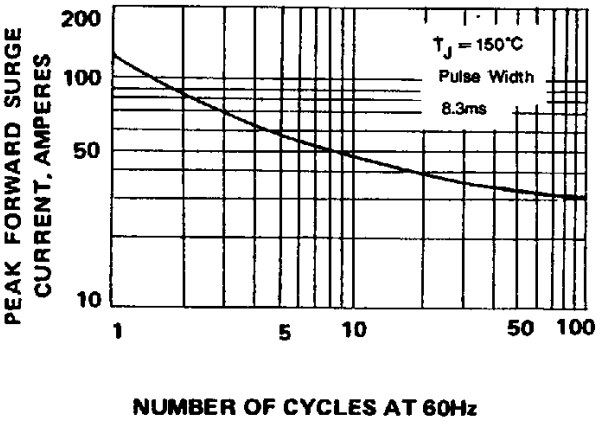


FIG. 4. TYPICAL REVERSE CHARACTERISTIC

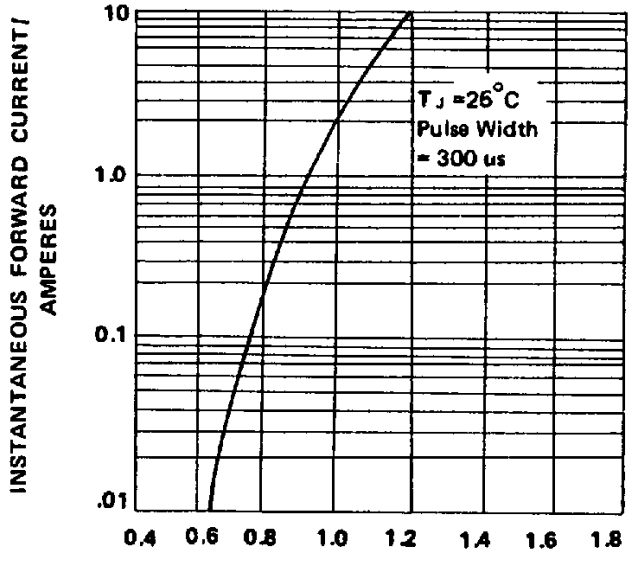


FIG. 5– TYPICAL JUNCTION CAPACITANCE