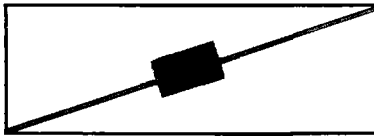


**3 AMPS, SOFT RECOVERY RECTIFIERS**



**VOLTAGE RANGE**  
50 to 600 Volts  
**CURRENT**  
3.0 Amperes

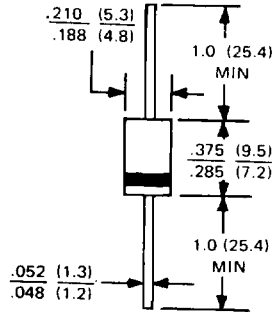
**FEATURES**

- Low cost
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with Freon, Alcohol, Chloroethene and similar solvents
- The plastic material carries U/L recognition 94V-0

**MECHANICAL DATA**

Case: JEDEC DO-201AD molded plastic  
 Terminals: Axial leads, solderable per MIL-STD-202, Method 208  
 Polarity: Color band denotes cathode  
 Mounting Position: Any  
 Weight: 0.04 ounces, 1.1 grams.

**DO-201AD**



Dimensions in inches and (millimeters)

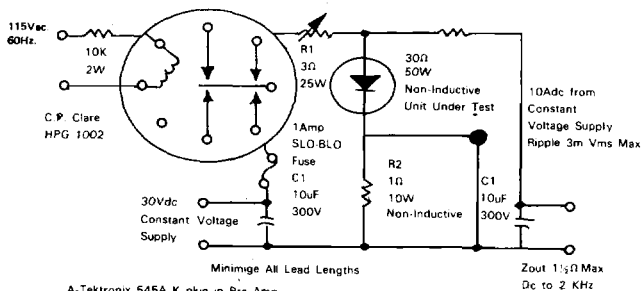
**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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%.

		SR850	SR851	SR852	SR854	SR856	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	60	100	200	400	600	V
Maximum Average Forward Rectified Current @ $T_A = 90^\circ C$	$I_{(AV)}$	3.0					A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	100					A
Maximum Forward Voltage of 3.0A DC $T_j = 25^\circ C$	$V_F$	1.25					V
Maximum DC Average Reverse Current at @ $T_A = 25^\circ C$ Rated DC Blocking Voltage @ $T_A = 100^\circ C$	$I_R$	10					$\mu A$
		200					$\mu A$
Maximum Recovery Time (Note 1)	t <sub>RR</sub>	200					ns
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	30					pF
Typical Thermal Resistance (Note 3)	R <sub>θJA</sub>	28					°C/W
Operating Temperature Range	T <sub>J</sub>	-65 to +150					°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +175					°C

NOTES: 1. Reverse Recovery Test Conditions:  $I_F = 1 A, V_R = 30V$   
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC  
 3. Thermal Resistance Junction to Ambient.

Fig. 1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



A-Tektronix 545A K plug in Pre Amp  
P6000 Probe or Equivalent  
R1-Adjusted for 1.4Ω between Point 2 of Relay and Rectifier Inductance-38nH  
R2-TEN-0W, 10Ω, 1e 1°C, Carbon Core in Parallel  
TA 25-10°C for Rectifier

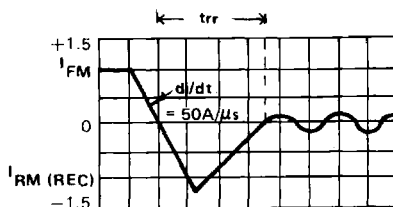


FIG. 2: FORWARD DERATING CURVE

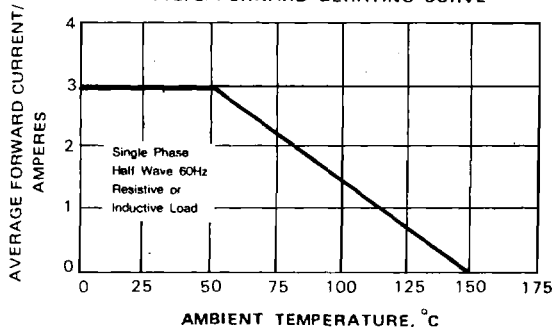


FIG. 3-PEAK FORWARD SURGE CURRENT

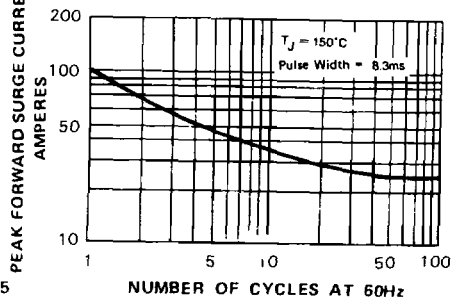


FIG. 4. -TYPICAL REVERSE CHARACTERISTICS

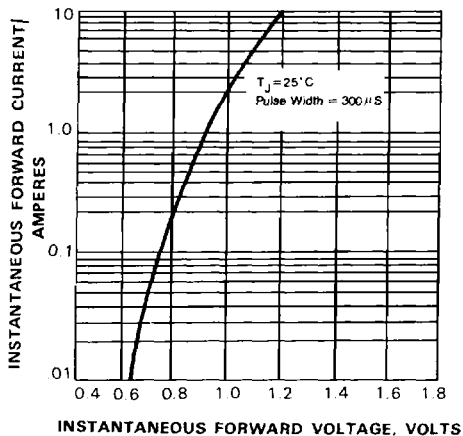


FIG. 5. -TYPICAL JUNCTION CAPACITANCE

