



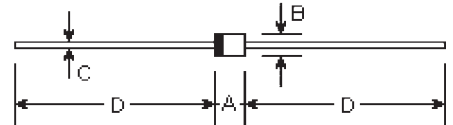
PR1000R THRU PR1800R

PHOTOFLASH RECTIFIER
Reverse Voltage - 1000 to 1800 Volts
Forward Current - 0.5 Ampere

Features

- Fast switching
- Low leakage
- Low forward voltage drop
- High current capability
- High surge capability
- High reliability

R-1



Mechanical Data

- **Case:** Molded plastic, R-1
- **Epoxy:** UL94V-0 rate flame retardant
- **Lead:** MIL-STD-202E method 208C guaranteed
- **Mounting Position:** Any
- **Weight:** 0.007 ounce, 0.20 gram

DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	0.114	0.138	2.9	3.5	
B	0.095	0.099	2.42	2.51	ϕ
C	0.020	0.024	0.5	0.6	ϕ
D	1.000	-	25.40	-	

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%.

	Symbols	PR1000R	PR1200R	PR1400R	PR1600R	PR1800R	Units
Maximum repetitive peak reverse voltage	V_{RRM}	1000	1200	1400	1600	1800	Volts
Maximum RMS voltage	V_{RMS}	700	840	980	1120	1260	Volts
Maximum DC blocking voltage	V_{DC}	1000	1200	1400	1600	1800	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{(AV)}$	500					mAmps
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method)	I_{FSM}	30.0					Amps
Maximum instantaneous forward voltage at 0.5A DC	V_F	1.5					Volts
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$	I_R	5.0					μA
Maximum reverse recovery time (Note 1)	T_{rr}	300.0					nS
Typical junction capacitance (Note 2)	C_j	10					μF
Operating and storage temperature range	T_J, T_{STG}	-65 to +175					$^\circ\text{C}$

Notes:

(1) Test conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$

(2) Measured at 1.0MHz and applied reverse voltage of 4.0 volts

RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - FORWARD CURRENT DERATING CURVE

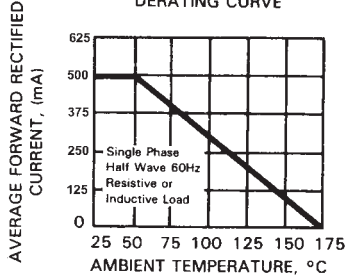


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

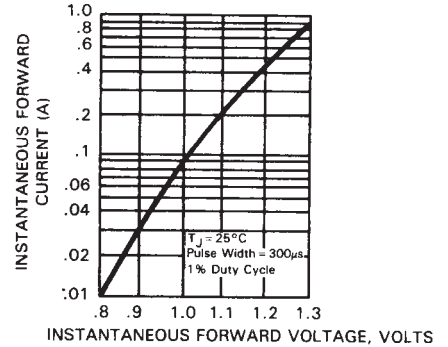


FIG. 3 - MAXIMUM NON-REPETITIVE SURGE CURRENT

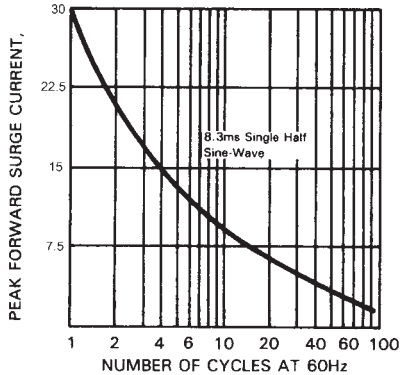


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

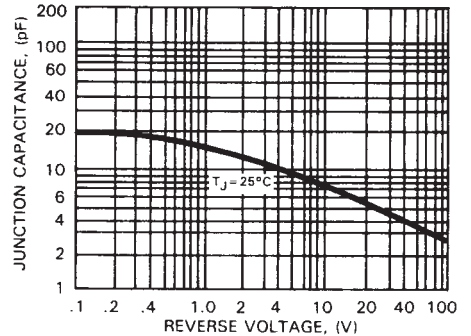
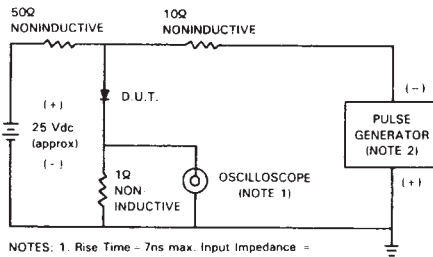


FIG. 5 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time - 7ns max. Input Impedance - 1 megohm 22pF.
2. Rise Time - 10ns max. Source Impedance - 50 ohms.

