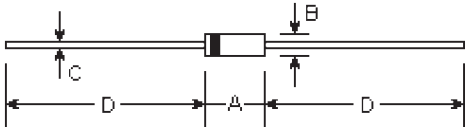
PR1000 THRU PR1800

PHOTOFLASH RECTIFIER
Reverse Voltage - 1000 to 1800 Volts
Forward Current - 0.1 Ampere

Features

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

DO-41



Mechanical Data

- **Case:** Molded plastic
- **Epoxy:** UL94V-0 rate flame retardant
- **Lead:** MIL-STD-202E method 208C guaranteed
- **Mounting Position:** Any
- **Weight:** 0.012 ounce, 0.335 gram

DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	0.165	0.205	4.2	5.2	
B	0.079	0.106	2.0	2.7	ϕ
C	0.028	0.034	0.71	0.86	ϕ
D	1.000	-	25.40	-	

Maximum Ratings and Electrical Characteristics

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

	Symbols	PR1000	PR1200	PR1400	PR1600	PR1800	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℃	$I_{(AV)}$	100					mAmps
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method)	I_{FSM}	20.0					Amps
Maximum instantaneous forward voltage at 0.1A DC	V_F	1.5					Volts
Maximum DC reverse current at rated DC blocking voltage T_A=25℃	I_R	5.0					μA
Maximum reverse recovery time (Note 1)	T_{rr}	300.0					nS
Typical junction capacitance (Note 2)	C_j	10					ρF
Operating and storage temperature range	T_J, T_{STG}	-65 to +175					℃

Notes:

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

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

RATINGS AND CHARACTERISTIC CURVES

FIG. 1 – FORWARD CURRENT DERATING CURVE

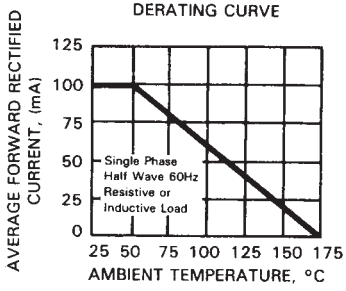


FIG. 2 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

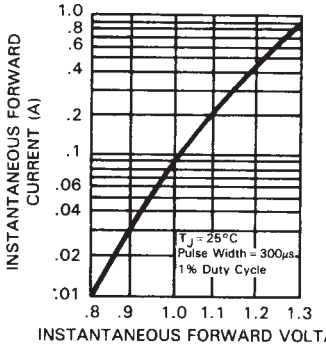


FIG. 3 – MAXIMUM NON-REPETITIVE SURGE CURRENT

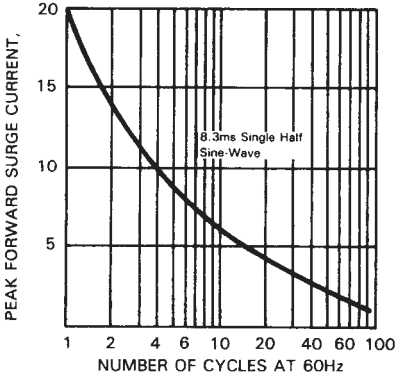


FIG. 4 – TYPICAL JUNCTION CAPACITANCE

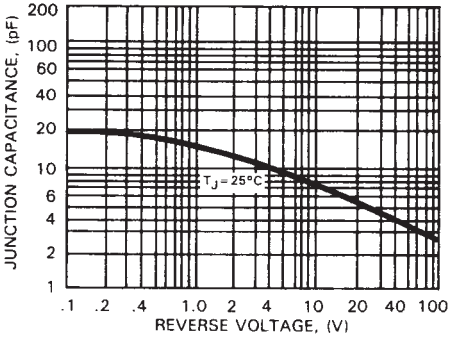
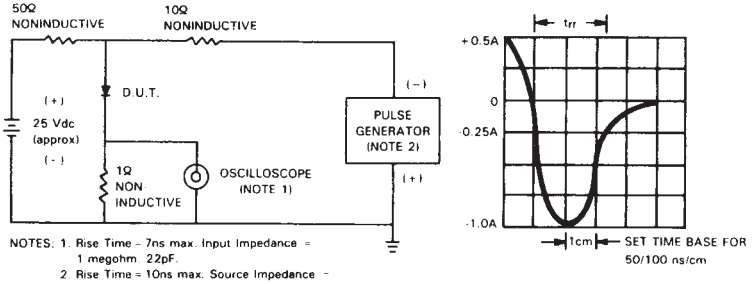


FIG. 5 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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