T-41-81

CLM9000

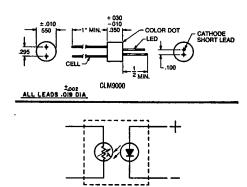
LED-**Photoconductor Isolators**

This PHOTOMOD® Series combines solid state lamps with Clairex® photoconductive cells in small, rugged axial-lead isolators.

CLM-9000 - This series utilizes a high voltage photocell with output handling capability of 8.5KV DC or Peak A.C.,

It is ideal for high voltage interfacing in industrial applications:

High voltage power supplies, high voltage oscillator, radar indicator, voltage pulse penetrator, high impedance filters, digital to C-Mos application, high voltage displays i.e., airport and train station. Computer interface in place of photomultiplier tubes.



*10KV isolation exceeds U.L. and VDE requirements.

TECHNICAL DATA

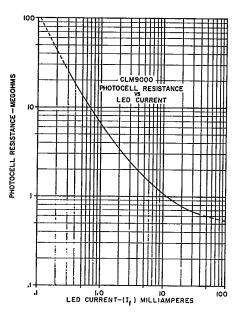
LED	CHARACTERISTICS	TEST CONDITIONS	CLM9000 MIN TYP MAX	UNITS
I _F max.	Maximum forward current		40	mA
٧ _F	Forward voltage	I _F =16mA	2.8	volts
l _R	Reverse current	V _R =4V	3	μΑ
PHOTOCELL V _{MAX}	Cell voltage		3.5	KV DC or PAC
Р	Power dissipation	25°C	400	milliwatts
PHOTOMOD R _{ON} (1)	On resistance	I _F =16 mA	1.2 Meg	ohms
R _{OFF} (2)	Off resistance	5 sec. after $I_F \rightarrow 0$ 400 VDC ON CELL	1000 Meg	ohms
t _R	Rise time	Time to 63% of final condition at I _F =16 mA	3.5	milliseconds
t _D	Decay time	Time to 100 Meg.	20	milliseconds
V _{BD}	Isolation		7000	volts DC or PAC
dRc/dt	Cell temperature coefficient	I _F ≥ 5 mA	0.6	%/°C

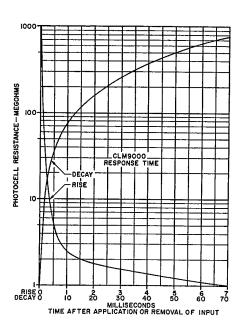
Absolute Maximum Ratings:

Temperature Storage - 40°C to 75°C

Operating — Derate power to 0 at 75°C

NOTES:
(1) Measured after 24 hrs. ON
(2) Measured after 24 hrs. ON followed by 5 sec. OFF





RESPONSE TIME

The t_{RISE} and t_{DECAY} curve is the response time of the module when the lamp current is instantaneously varied from either zero to rated lamp current (t_{RISE}) or rated lamp current to zero (t_{DECAY}).

These curves are representative characteristics. For specific specifications, please contact the factory.

Notes:

1 P.D. at 25°C case temperature. Derate linearly to 0 at 75°C.

Allowable PHOTOMOD dissipation is determined by the photocell temperature which must not exceed $75^{\circ}\mathrm{C}$ for continuous operation.

- (2) After 24 hours on.
- \bigcirc Rise time measured after 24 hours on + 5 seconds off.
- 4 Decay time measured from 24 hours on.
- (5) Each element.
- 6 Inter-element balance $\pm 25\%$ from $I_F = 1 40 \text{mA}$