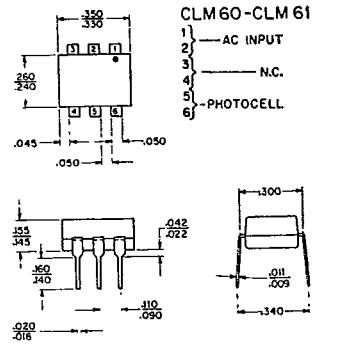
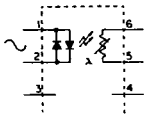
CLM60
CLM61

Dual LED-Photoconductor Dip Isolators





The CLM60 and CLM61 incorporate two GaP LEDs connected in inverse parallel and coupled to a photoconductive cell, thereby featuring an A.C. signal input capability. The photoconductive cell outputs feature 250V PAC ratings, and both units have 2500V PAC isolation levels, along with 1 Meg ohm minimum Off Resistances. Controlled resistances are featured at 16mA and 1mA respectively. These components are recognized under the Component Program of Underwriters' Laboratories Inc.

TECHNICAL DATA

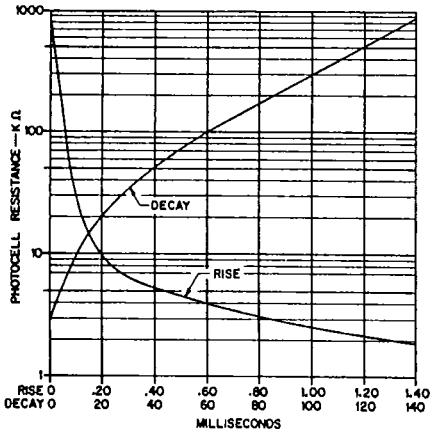
LED	CHARACTERISTICS	TEST CONDITIONS	CLM60 Min.	CLM60 Typ.	CLM60 Max.	CLM61 Min.	CLM61 Typ.	CLM61 Max.	UNITS
I_F max.	Maximum forward current				40			40	mA
V_F	Forward voltage	I_F=16mA		2.0	2.5		2.0	2.5	volts
PHOTOCELL V_{MAX}	Cell voltage				250			250	volts DC or PAC
P ①	Power dissipation	25° C			50			50	milliwatts
PHOTOMOD R_{ON} ②	On resistance	I_F = 1mA I_F = 16mA		7.5K 2K	4K		1.75K	7K	ohms
R_{OFF}	Off resistance	5 sec after $I_F \rightarrow 0$ 4 VDC on cell	1 Meg.			1Meg.			ohms
t_R ③	Rise time	Time to 63% of final condition at I_F = 16 mA		500			500		μ sec
t_D ④	Decay time	Time to 100K		60			60		milliseconds
V_{BD}	Isolation		2500			2500			volts DC or PAC
dRc/dt	Cell temperature coefficient	$I_F \geq$ 1mA		1			1		%/° C

Absolute Maximum Ratings:

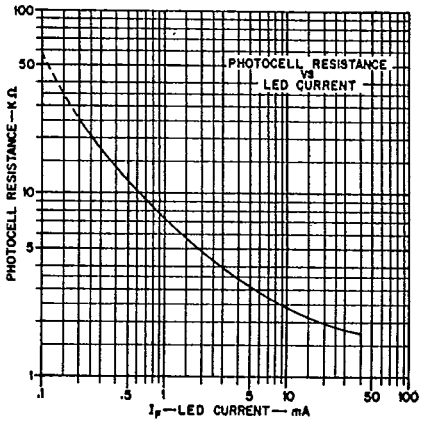
Temperature Storage — 40° to 75°C **Operating — Derate power to 0 at 75°C**

PC-LED PHOTOMOD SLOPE CHARACTERISTICS

RESPONSE TIME



RESISTANCE vs. LED CURRENT



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°C for continuous operation.

(2) After 24 hours on.

(3) Rise time measured after 24 hours on + 5 seconds off.

(4) Decay time measured from 24 hours on.