

T-41-81

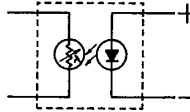
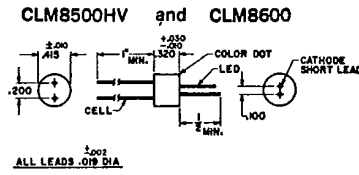
# LED- Photoconductor Isolators

## CLM8500HV CLM8600

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

The CLM8500HV utilizes a hermetic photocell output for stringent industrial applications. The isolator is ideal for triac control, and TTL interfacing. The 400V PAC cell rating provides line voltage protection.

The CLM8600 utilizes a plastic photocell output with a 500V PAC rating and 3.0KV PAC unit isolation rating. It is ideal for line voltage isolation, speed controls, triac control and interfacing for low level logic functions.



### TECHNICAL DATA

LED	CHARACTERISTICS	TEST CONDITIONS	CLM8500HV			CLM8600			UNITS
			Min.	Typ.	Max.	Min.	Typ.	Max.	
I <sub>F</sub> max.	Maximum forward current			40			40		mA
V <sub>F</sub>	Forward voltage	I <sub>F</sub> = 16 mA		2.5			2.5		volts
I <sub>R</sub>	Reverse current	V <sub>R</sub> = .4 V		3			3		μA
PHOTOCELL V <sub>MAX</sub>	Cell voltage			400			500		volts DC or PAC
P ①	Power dissipation	25°C		125			100		milliwatts
PHOTOMOD R <sub>ON</sub> ②	On resistance	I <sub>F</sub> = 16 mA		5K			2K		ohms
R <sub>OFF</sub>	Off resistance	10 sec. after I <sub>F</sub> → 0 400 VDC 10 VDC		10 Meg			10 Meg		ohms ohms
t <sub>R</sub> ③	Rise time	Time to 63% of final condition at I <sub>F</sub> = 16 mA		3.5			3.5		milliseconds
t <sub>D</sub> ④	Decay time	Time to 100K		40			40		milliseconds
V <sub>BD</sub>	Isolation			2000			3000		volts DC or PAC
dRc/dt	Cell temperature coefficient	I <sub>F</sub> ≥ 5 mA		.7			.7		%/°C

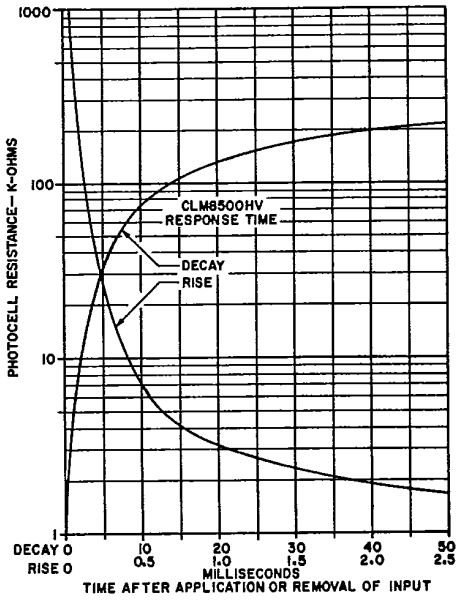
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Temperature Storage — 40° to 75°C      Absolute Maximum Ratings:      Operating — Derate power to 0 at 75°C

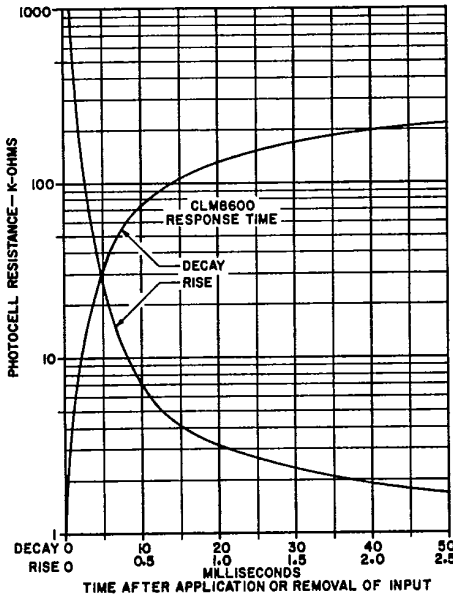
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PC-LED PHOTOMOD SLOPE CHARACTERISTICS

CLM8500HV



CLM8600



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.

