

FASCO INDSY SENISYS

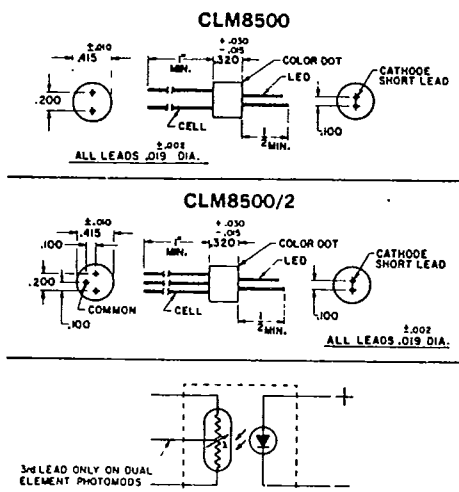
CLM8500  
CLM8500/2

LED-  
Photoconductor  
Isolators

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

The CLM 8500 combines a CdS hermetically sealed cell with an LED for high reliability. The line voltage capability and fast response time of the photocell are ideally suited for Triac Switching circuitry.

The CLM8500/2 combines a dual element CdS hermetically sealed photocell with an LED for high reliability. The dual output, balanced over a wide range of input currents, is ideally suited for applications requiring 2 channel control.



TECHNICAL DATA

LED	CHARACTERISTICS	TEST CONDITIONS	CLM 8500			CLM8500/2			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> = 15 mA			2.8			2.8	volts
I <sub>R</sub>	Reverse current	V <sub>R</sub> = 4 V			3			3	μA
PHOTOCELL V <sub>MAX</sub>	Cell voltage				220			100	volts DC or PAC
P ①	Power dissipation	25°C			125			125	milliwatts
PHOTOMOD R <sub>ON</sub> ②	On resistance	I <sub>F</sub> = 16 mA			2K			⑤ ⑥ 1K	ohms
R <sub>OFF</sub>	Off resistance	10 sec after I <sub>F</sub> → 0 4 VDC on cell	10 Meg			1 Meg			ohms
t <sub>R</sub> ③	Rise time	Time to 63% of final condition at I <sub>F</sub> = 16			3.5			5	milliseconds
t <sub>D</sub> ④	Decay time	Time to RC = 0.1 Meg			20			150	milliseconds
V <sub>BD</sub>	Isolation		2000			2000			volts DC or PAC
dRc/dt	Cell temperature coefficient	I <sub>F</sub> ≥ 5 mA			0.7			0.7	%/°C

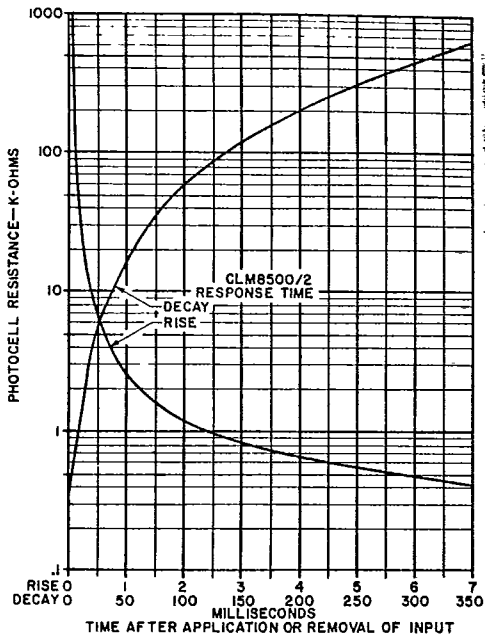
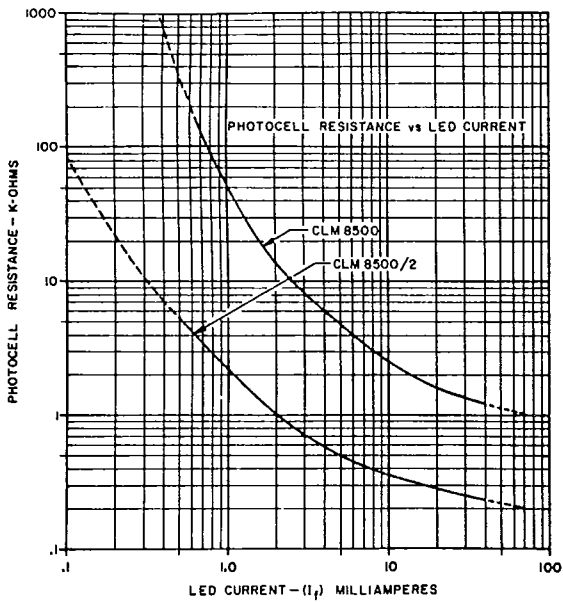
Absolute Maximum Ratings:

Temperature Storage — 10°C to 75°C

Operating — Derate power to 0 at 75°C

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# PC-LED PHOTOMOD SLOPE CHARACTERISTICS



## 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.
- ⑤ Each element.
- ⑥ Inter-element balance  $\pm 25\%$  from  $I_F = 1 - 40mA$

