T-41-81

CLM8200
CLM8200/2

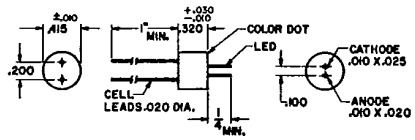
LED-Photoconductor Isolators

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

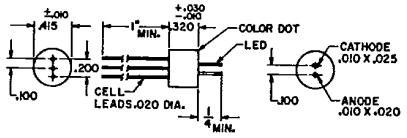
The CLM8200 is an ideal general purpose isolator for both analog and digital applications. It features low output resistance, line voltage rating on output, fast switching speed and high isolation capability. The output is a plastic photocell.

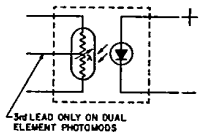
The CLM8200/2 features a plastic dual photocell output for applications requiring dual channel control. The outputs are balanced over an I_f range of 1ma to 40ma, along with an excellent resistance ratio.

CLM8200



CLM8200/2





TECHNICAL DATA

LED	CHARACTERISTICS	TEST CONDITIONS	CLM8200 Min.	CLM8200 Typ.	CLM8200 Max.	CLM8200/2 Min.	CLM8200/2 Typ.	CLM8200/2 Max.	UNITS
I_F max.	Maximum forward current				40			40	mA
V_F	Forward voltage	I_F = 16 mA			2.0			2.0	volts
I_R	Reverse current	V_R = 4 V			100			100	μA
PHOTOCELL V_{MAX}	Cell voltage				220			100	volts DC or PAC
P ①	Power dissipation	25°C			125			125	milliwatts
PHOTOMOD R_{ON} ②	On resistance	I_F = 16 mA			2 8K			⑤⑥ 5 K	ohms
R_{OFF}	Off resistance	10 sec. after I_F →0 4 VDC on cell	10 Meg			10 Meg			ohms
t_R ③	Rise time	Time to 63% of final condition at I_F = 16 mA		3			3.5		milliseconds
t_D ④	Decay time	Time to 100K		20			30		milliseconds
V_{BD}	Isolation		2500			2500			volts DC or PAC
dRc/dt	Cell temperature coefficient	$I_F \geq$ 5 mA			0 6			0 6	%/°C

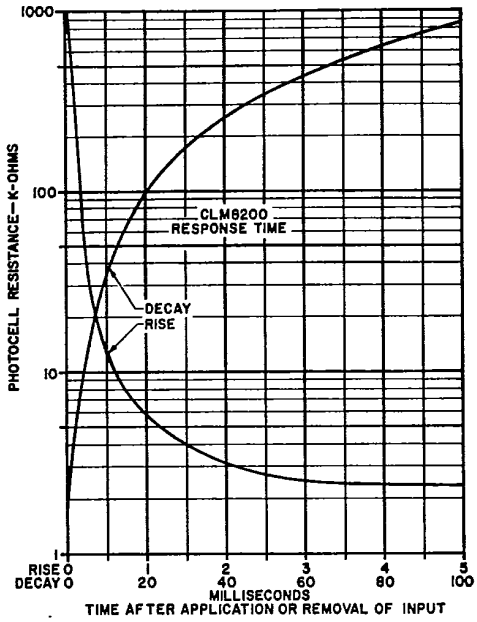
Absolute Maximum Ratings:

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

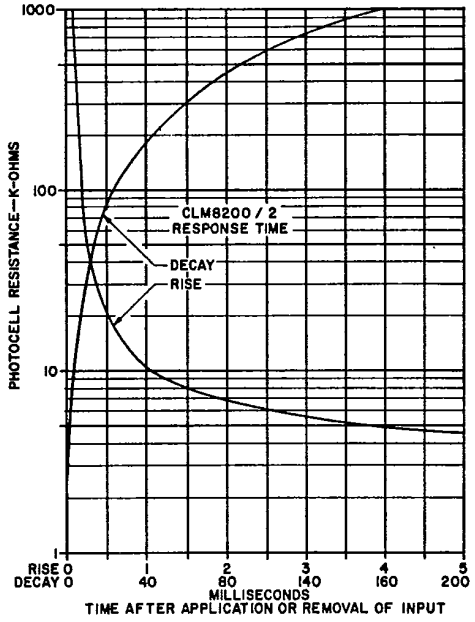
U.L. RECOGNIZED COMPONENT

PC-LED PHOTOMOD SLOPE CHARACTERISTICS T-41-81

CLM8200



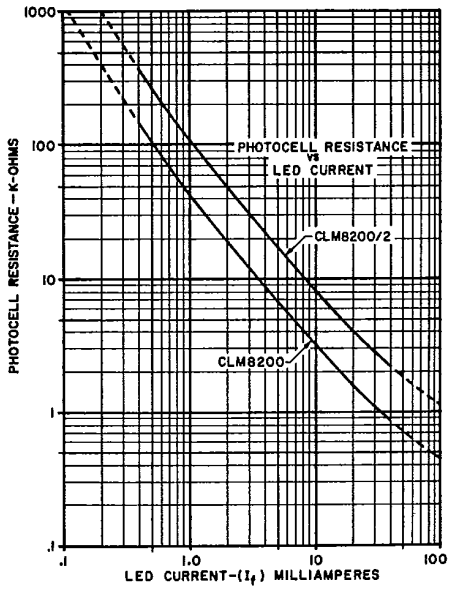
CLM8200/2



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 ± 25% from I_F = 1 - 40mA