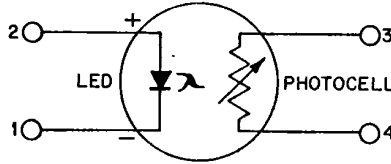
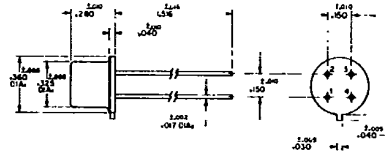


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**CLM7000  
CLM7100  
CLM7200**

**LED-  
Photoconductor  
Isolators**

This new photomod series combines a photoconductive cell and an LED lamp in a hermetically sealed TO-5 package, for high reliability and long life. The moderate speed of response of the photoconductor eliminates much of the noise transmitted by silicon opto-isolators. This characteristic is especially useful in audio applications. All leads are isolated from the case.



**TECHNICAL DATA**

LED	CHARACTERISTICS	TEST CONDITIONS	CLM7000			CLM7100			CLM7200			UNITS
			Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
$I_{fmax}$	Maximum forward current				40.00			40.00			40.00	milliamps
$V_f$	Forward voltage	$I_f = 20.00 \text{ mA}$			2.00			2.00			2.00	volts
$I_r$	Reverse current	$V_f = 3.00 \text{ V}$			100.00			100.00			100.00	microamps
PHOTOCELL $V_{max}$	Cell voltage				100.00			100.00			100.00	V DC-PAC
P ①	Power dissipation	25°C			100.00			100.00			100.00	milliwatts
$C_c$	Cell capacitance	$I_f = 0 \text{ mA}$			2.00			1.60			1.00	picofarad
PHOTOMOD $R_{on}$ ②	On resistance	$I_f = 20 \text{ mA}$ $I_f = 2.0 \text{ mA}$			0.60			2.00			5.00	kohms
					3.50			11.00			36.00	kohms
$R_{off}$	Off resistance	5 sec. after $I_f = 0 \text{ mA}$	5.00			10.00			10.00			megohms
$T_r$ ③	Rise time	Time to 63% of lin. cond.			3.50			3.50			3.00	milliseconds
$T_d$ ④	Decay time	Time to 100 kohms			120.00			40.00			10.00	milliseconds
$V_{bd}$	Isolation voltage		750.00			750.00			750.00			volts DC or PAC
$C_i$	Isolation capacitance				0.80			0.80			0.80	picofarad
$T_c$	Temp. coef. (dR/dT)	$I_f > 5 \text{ mA}$			0.70			0.60			0.60	%/°C
$T_{hd}$	Tot. harm dist. @ 1000 Hz	$I_f = 20 \text{ mA}$			0.02			0.02			0.02	%
G	Slope	$I_f = 0.2 - 20.0 \text{ mA}$			1.05			1.15			1.15	

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Absolute Maximum Ratings:

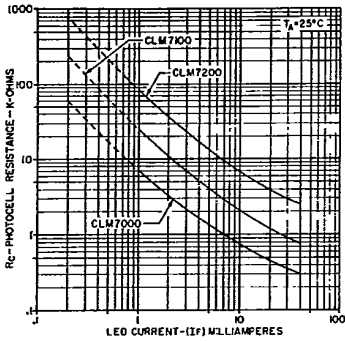
Temperature Storage — 40° to 80°C

Operating — Derate power to 0 to 80°C

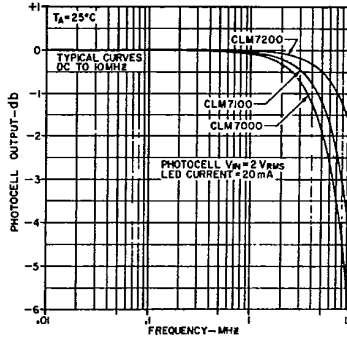
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PC-LED PHOTOMOD SLOPE CHARACTERISTICS

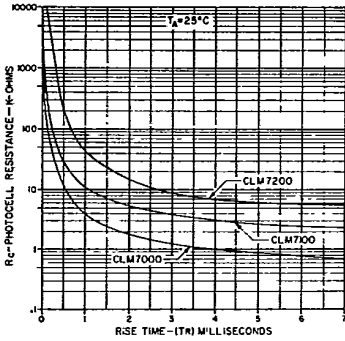
PHOTOCELL RESISTANCE (Rc) vs. LED CURRENT (If)



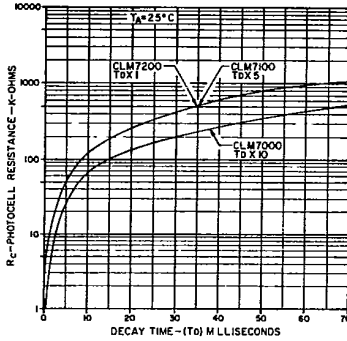
FREQUENCY RESPONSE



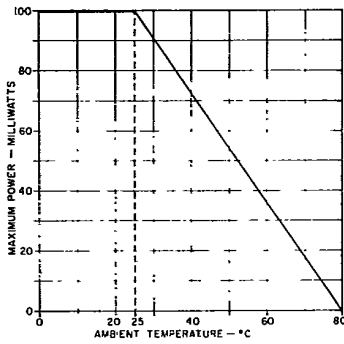
PHOTOCELL RESISTANCE (Rc) vs RISE TIME (Tr)



PHOTOCELL RESISTANCE (Rc) vs DECAY TIME (Td)



PHOTOMODULE POWER DISSIPATION



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, and application assistance, please contact the factory.

Notes:

- ① P.D. at 25°C case temperature. Derate linearly to 0 at 80°C. Allowable PHOTOMOD dissipation is determined by the photocell temperature which must not exceed 80°C for continuous operation. Lead soldering temp. 260°C, 5 sec. dwell max.
- ② After 24 hours on.
- ③ Rise time measured after 24 hours on + 5 seconds off.
- ④ Decay time measured from 24 hours on.