T-41-81

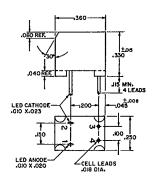
## CLM400 CLM410

# LED-Photoconductor Isolators

The first in the series is the CLM400, which is an exact drop-in replacement electrically for the CLM6000 PHOTOMOD. The radial lead design eliminates costly lead cutting and forming operations now needed for PCB usage.

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The second in the series is the CLM410 which has very low "on" resistance of 750 ohms @ 1 ma. drive versus the CLM6000 or CLM400 with 500 ohms @ 20 ma. drive. Both of the new 400 Series devices are now specified at 1 ma. drive currents.





### ELECTRICAL CHARACTERISTICS @25°C TECHNICAL DATA

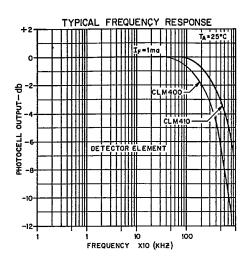
Led	Characteristics	Test Conditions	Min.	CLM400 Typ.	Max.	Min.	CLM410 Type.	Max.	Units
I <sub>E MAX</sub>	Maximum forward current	1.	1		40			40	mA
V <sub>F</sub>	Forward voltage	I <sub>F ≃ 20 mA</sub>			2.0			2.5	voits
l <sub>R</sub>	Reverse current	V <sub>R</sub> = 4V			100			100	μΑ
PHOTOCELL V <sub>MAX</sub>	Celi voltage				60			60	volts DC or PAC
P (1)	Power dissipation	25°C			50			50	milliwatts
PHOTOMOD (1)	On resistance	l <sub>F</sub> = 1 mA l <sub>F</sub> = 20 mA			5K 500			750	ohms ohms
Poff	Off resistance	10 sec. after I <sub>F</sub> → 0 4 VDC on cell	500K			500K			ohms
t <sub>A</sub> ①	Rise time	Time to 63% of final condition at I <sub>F</sub> = 40		3.5			3.5		milliseconds
t <sub>D</sub> ①	Decay time	Time to 100K			500			500	milliseconds
V <sub>BD</sub>	Isolation		2000			2000			volts DC or PAC
dRc/dt	Cell temperature coefficient	I <sub>F</sub> = 1 mA - 40 to 70°C		3			•2		%/°C
CINYOUT	Input-Output capacitance	V = OV f = 1MHZ		.65			.65		pf

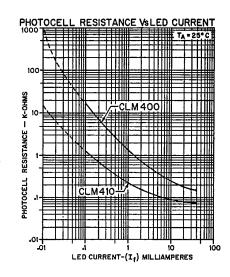
Absolute Maximum Ratings:

Temperature Storage — 40 °C to 75 °C

Operating -- Derate power to 0 at 75°C

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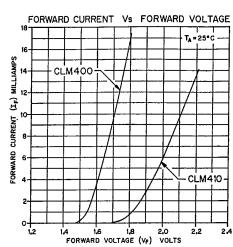




### RESPONSE TIME

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.