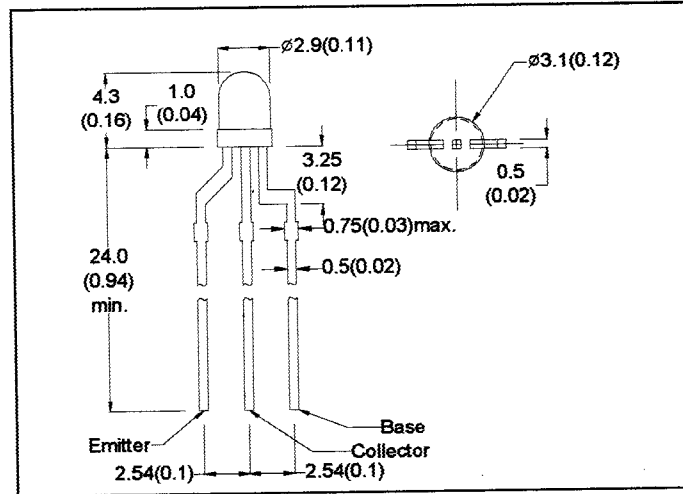


DESCRIPTION

MEL708 is NPN silicon photo-transistor with external base connection and built in a standard T-1 (3mm) water clear package.

This device is suitable for use in a light sensor of the industrial control application.

The availability of base lead also allows the circuit designer to optimise their design.



- All Dimension in mm (inch)
- No Scale
- Tol : +/- 0.3mm

ABSOLUTE MAXIMUM RATINGS

Collector-Emitter Voltage	V _{CEO}	30V
Emitter-Base Voltage	V _{EB0}	5V
Collector Current	I _C	50mA
Peak Collector Current	I _{CP}	100mA
Power Dissipation (T _a =25°C)	P _{tot}	200mW
Operating & Storage Temperature	T _{stg}	-55 to +100°C
Lead Soldering Temperature (1/16" from body)		260°C for 5 sec.

ELECTRO-OPTICAL CHARACTERISTICS (T_a=25°C)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	CONDITIONS	
Collector-Base Breakdown Voltage	BV _{CB0}	50			V	I _C =100 μA	
Collector-Emitter Breakdown Voltage	BV _{CEO}	30			V	I _C =1mA	
Emitter-Collector Breakdown Voltage	BV _{ECO}	5			V	I _{EC} =100 μA	
Dark Current	I _D			100	nA	V _{CE} =5V E _e =0	
Light Current	I _L				mA	V _{CE} =5V E _e =5mW/cm ² *	
		MEL708	0.25	1.50		mA	V _{CE} =5V E _e =5mW/cm ² *
		MEL708-A	0.50		1.90	mA	V _{CE} =5V E _e =5mW/cm ² *
Rise / Fall Time	T _R / T _F		15/15		us	V _{CE} =5V I _C =1mA R _L =1000 Ω	
Collector-Emitter Saturation Voltage	V _{CE(sat)}			0.6	V	I _C =2mA I _B =100 μA	
Viewing Angle	2θ 1/2		138		degree	I _F =20mA	

* Measured at noted irradiance as emitted from tungsten filament lamp at a color temperature of

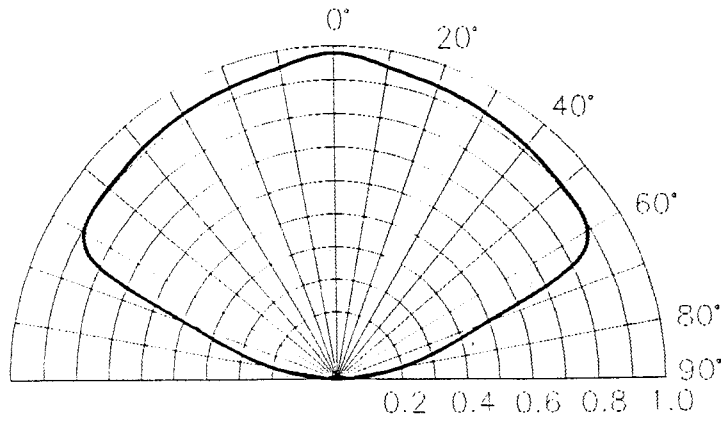
Rev. C.

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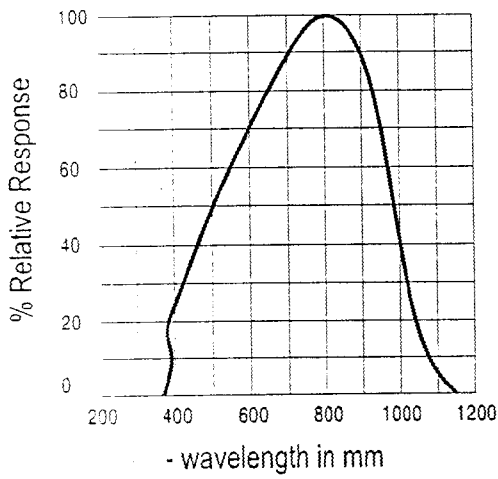
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MEL708

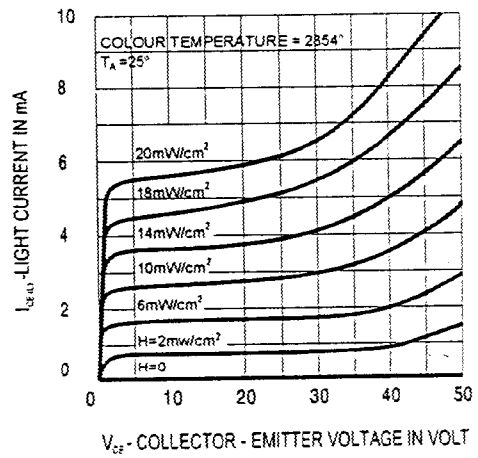


MEL708 VIEW ANGLE

Spectral Characteristics



LIGHT CURRENT VS COLLECTOR-EMITTER VOLTAGE



COLLECTOR DARK CURRENT VS AMBIENT TEMPERATURE

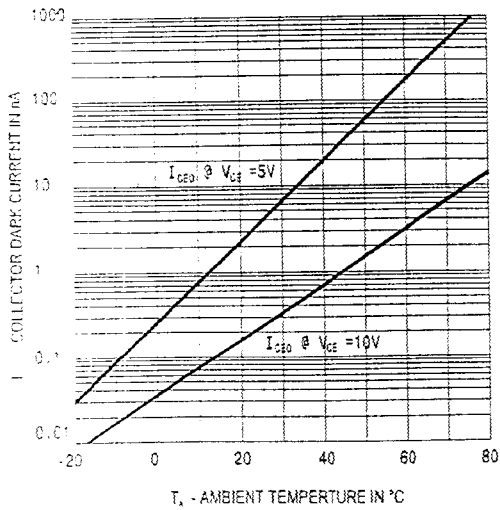


PHOTO CURRENT CHARACTERISTICS

