

MICRO

ELECTRONICS

MEL709D

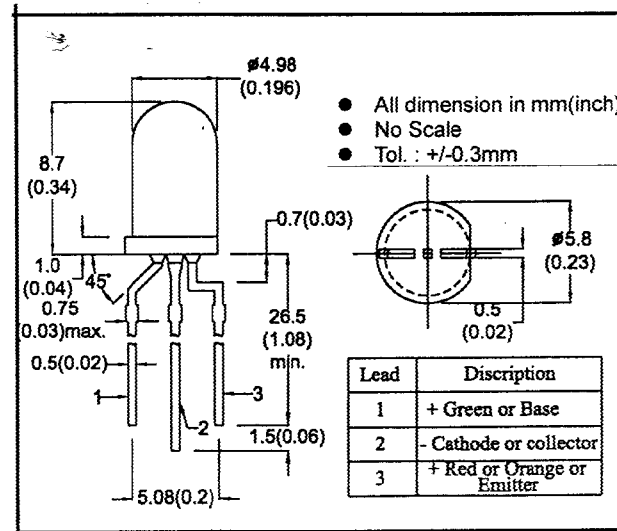
NPN SILICON
PHOTO
TRANSISTOR

DESCRIPTION

MEL709D is NPN silicon photo-transistor with external base connection and built in a standard T-1 3/4 (5mm) light rejective epoxy 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.



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	MAX	UNIT	CONDITIONS
Peak Wavelength	λ_p	850	TYP	nm	
Viewing Angle	2 θ 1/2	40	TYP	degree	
Dark Current	I _D		1	μ A	V _{CE} =10V E _e =0
Light Current	I _L	4		mA	V _{CE} =5V E _e =1mW/cm ²
		13	TYP		λ_p =950nm*
Collector-Emitter Saturation Voltage	V _{CE(sat)}		0.6	V	I _C =2mA I _B =100 μ A

* The illumination source is a GaAs LED emitting at 950nm.



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