

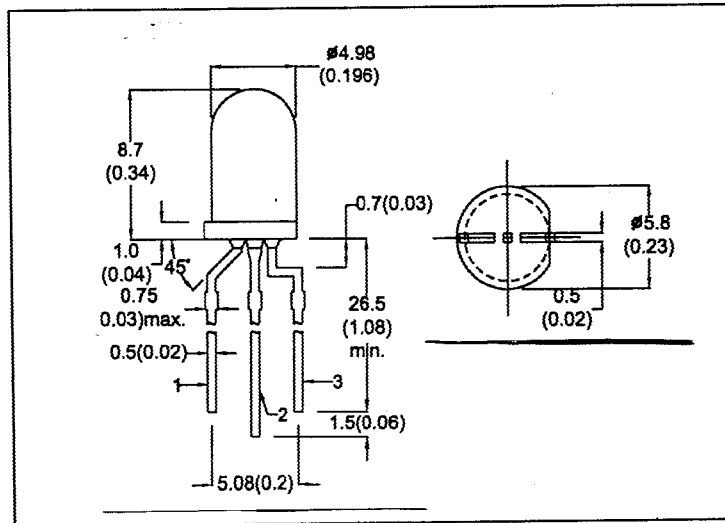
MICRO ELECTRONICS

MEL709
**NPN SILICON
 PHOTO
 TRANSISTOR**

DESCRIPTION

MEL709 is NPN silicon photo-transistor with external base connection and built in a standard T-1 3/4 (5mm) water clear package.

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



- 1 - Base
- 2 - Collector
- 3 - Emitter
- 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	
Collector-Base Breakdown Voltage	BV _{CBO}	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			1	μA	V _{CE} =20V E _e =0
Light Current	I _L				mA	V _{CE} =5V E _e =5mW/cm ² *
	MEL709 I _L	4	1.5		mA	V _{CE} =5V E _e =5mW/cm ² *
	MEL709-A I _L	0.5		1.9	mA	V _{CE} =5V E _e =5mW/cm ² *
Rise / Fall Time	TR / TF		15/15		us	V _{CE} =5V I _C =1mA R _L =1000Ω
Collector-Emitter Saturation Voltage	V _{CE(sat)}			0.6	V	I _C =2mA I _B =100μA

* Measured at noted irradiance as emitted from tungstun filament lamp at a color temperature of 2854°K.

MICRO ELECTRONICS LTD.

38, Hung To Road, Microtron Building, Kwun Tong, Kowloon, Hong Kong.

Kwun Tong P.O. Box 69477 Hong Kong. Fax No. 2341 0321 Telex:43510 Micro Hx. Tel: 2343 0181-5

Rev. B.

Nov-99