

MELECTRONICSICRO

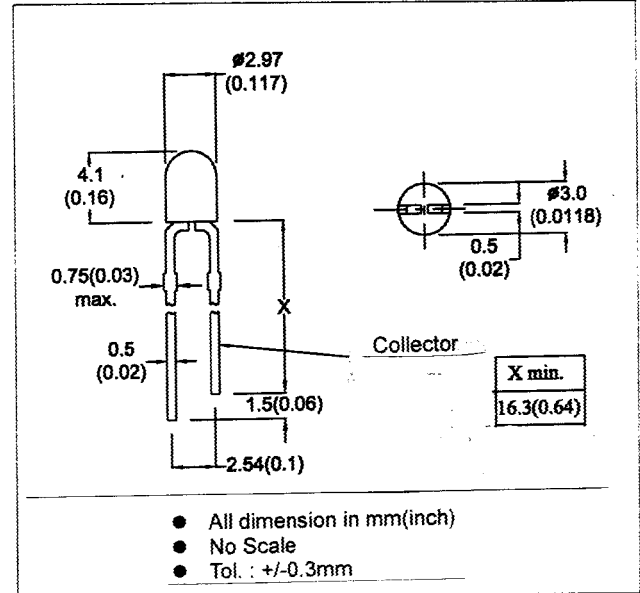
MEL82

NPN SILICON
PHOTO
TRANSISTOR

DESCRIPTION

MEL82 is NPN silicon planar photo-transistor. It is encapsulated in a 3mm diameter, low profile and flangeless water clear transparent epoxy package.

It features ultra high illumination sensitivity, fast response time, and spectrally matched with the infra-red emitter MI38T series.



ABSOLUTE MAXIMUM RATINGS

Collector-Emitter Voltage	VCEO	20V
Emitter-Collector Voltage	VECO	5V
Continuous Power Dissipation	Pd	50mW
Operating Junction Temperature	Tj	-40 to +85°C
Storage Temperature Range	Tstg	-40 to +100°C

ELECTRO-OPTICAL CHARACTERISTICS (Ta=25°C)

PARAMETER	SYMBOL	MIN	MAX	UNIT	CONDITIONS
Collector-Emitter Breakdown Voltage	BVCEO	20		V	IC=100μA Ee=0
Emitter-Collector Breakdown Voltage	BVECO	5		V	IC=100μA Ee=0
Dark Current	ID		100	nA	VCE=10V Ee=0
Light Current	IL	3.5		mA	VCE=5V Ee=5mW/cm² *
Collector-Emitter Saturation Voltage	VCE(sat)		0.3	V	IC=500μA Ee=20mW/cm²
Rise Time	Tr	3	TYP	μs	Vcc=5V IC=4mA RL=100ohm
Fall Time	Tf	3	TYP	μs	Vcc=5V IC=4mA RL=100ohm

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



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MEL82 TYPICAL CHARACTERISTICS

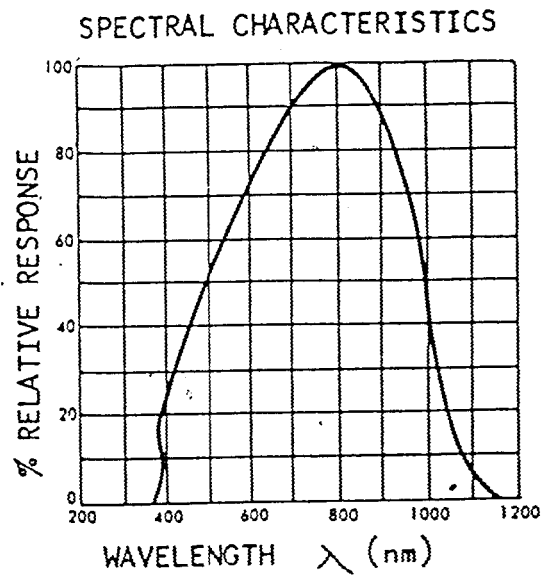
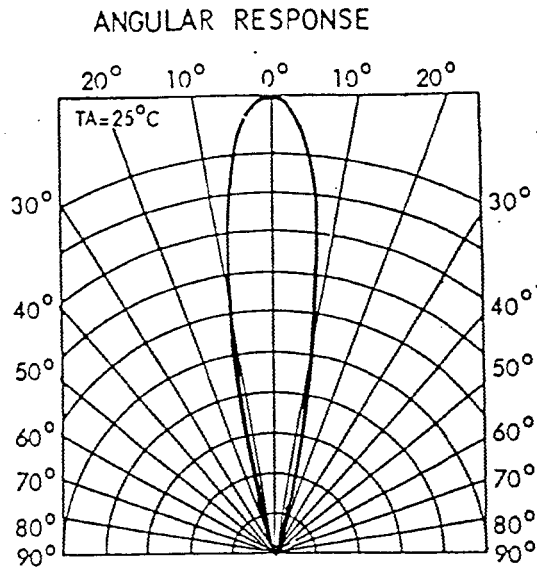
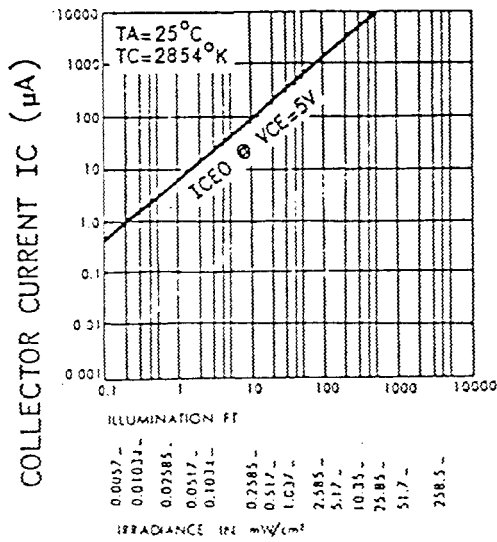


PHOTO CURRENT CHARACTERISTICS



LIGHT CURRENT VS COLLECTOR-EMITTER VOLTAGE

