

SILICON PHOTODARLINGTON "PIGTAIL" 61010 (TYPE GS 3030)

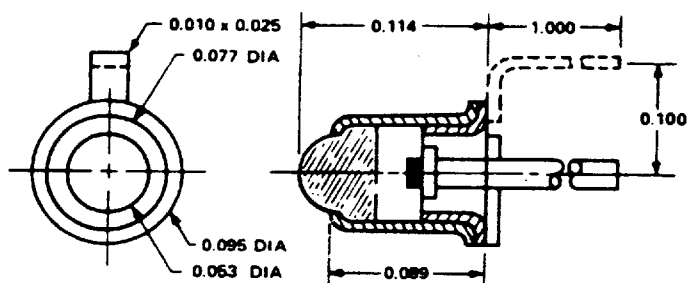


GENERAL DESCRIPTION

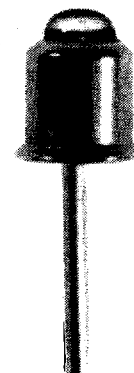
MINIATURE PHOTODARLINGTON WITH NARROW ANGULAR RESPONSE GLASS/METAL WELDED HERMETIC PACKAGED

Mii 61010 is an N-P-N Planar Silicon Photodarlington Transistor in a lensed coaxial package designed to be mounted in a single-clad printed circuit board. Its large effective aperture and narrow angular response make this a highly sensitive device with minimum response to off-axis or stray light. This sensor is also available with a lead attached to the case so that it may be connected without the use of a printed circuit board. Available screened to MIL-S-19500.

PHYSICAL DESCRIPTION



ALL DIMENSIONS ARE IN INCHES.



OPTICAL/ELECTRICAL CHARACTERISTICS AT 25°C

PARAMETER	LIGHT CURRENT		DARK CURRENT	COLLECTOR BREAKDOWN	EMITTER BREAKDOWN	LIGHT CURRENT RISE TIME	SATURATION VOLTAGE	ANGULAR RESPONSE
TEST CONDITION	$V_{CE} = 5V$ * $H = 0.2 \text{ mW/cm}^2$		$V_{CE} = 10V$ $H = 0$	$I_C = 100 \mu A$	$I_F = 100 \mu A$	$R_L = 100\Omega$ $V_{CC} = 5V$ $I_L = 1.0 \text{ mA}$	$I_C = 1 \text{ mA}$ H as shown	Note 1
SYMBOL	I_L		I_D	BV_{CEO}	BV_{ECO}	t_r	$V_{CE}(\text{sat})$	θ
UNIT	mA		nA	VOLTS	VOLTS	$\mu \text{ sec}$	VOLTS	degrees
	MIN	MAX	MAX	MIN	MIN	TYP	MAX	TYP
GS 3030-1	0.6	2.5	250	15	5	15	- 1.1	12
GS 3030-2	2.0	5.0	250	15	5	20	1.1	12
GS 3030-3	4.0	-	250	15	5	25	1.1	12

* Irradiance in mW/cm^2 from a tungsten source at a color temperature of 2870K

1 The angle between incidence for peak response and incidence for 50% of peak response

61010 SILICON PHOTODARLINGTON

ABSOLUTE MAXIMUM RATINGS

25°C FREE AIR TEMPERATURE UNLESS NOTED

Collector-Emitter Voltage	40 V
Emitter-Collector Voltage	7 V
Total Device Dissipation at (or below) . 25°C Free-Air Temperature (see Note)	50 mW
Operating Free-Air Temperature Range	-65°C to + 70°C
Storage Temperature Range	-65°C to + 150°C
Soldering Temperature (3 minutes)	240°C

NOTE: Derate linearly to 125°C free-air temperature at the rate of 0.5 mW/°C.

TYPICAL CHARACTERISTICS

