

SILICON PHOTODARLINGTON "PILL PACK" 61056 (TYPE GS 1030)



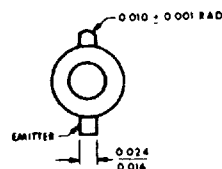
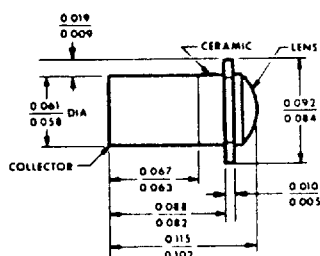
T-41-63

GENERAL DESCRIPTION

MINIATURE HIGH GAIN PHOTODARLINGTON
GLASS/CERAMIC/KOVAR HERMETIC PACKAGE

Mii 61056 is an N-P-N Planar Silicon Photodarlington Transistor designed to be used in low light level applications. The miniature package is designed to be mounted in a double-clad printed circuit board, and is lensed for high on-axis response and low cross-talk. Available screened to MIL-S-19500.

PHYSICAL DESCRIPTION



ALL DIMENSIONS 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	$V_{CE} = 5V$ • $H = 10 \text{ mW/cm}^2$		$V_{CE} = 10V$ $H = 0$	$I_C = 100 \mu A$	$I_E = 100 \mu A$	$R_L = 100 \Omega$ $V_{CC} = 5V$ $I_L = 1.0 \text{ mA}$	$I_C = 1 \text{ mA}$ 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 1030-1	1.0	4.0	250	15	5	15	1.1	24
GS 1030-2	3.0	7.0	250	15	5	20	1.1	24
GS 1030-3	6.0		250	15	5	25	1.1	24

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

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

SILICON PHOTODARLINGTON, TYPE GS 1030, *Continued*

61056 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)	50 mW
25°C Free-Air Temperature (see Note)	
Operating Free-Air Temperature Range	-65°C to +125°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

