

**62000**

**GaAs LIGHT EMITTING DIODE "PILL PACK"  
(TYPE GS1140)**

**Mii**  
OPTOELECTRONIC PRODUCTS  
DIVISION

**Features:**

- Hermetically sealed
- High output, 940nm
- Small package
- PC board mountable
- Spectrally matched to the 61055 series detector

**Applications**

- Incremental encoding
- Reflective sensors
- Position sensors
- Level sensors

**DESCRIPTION**

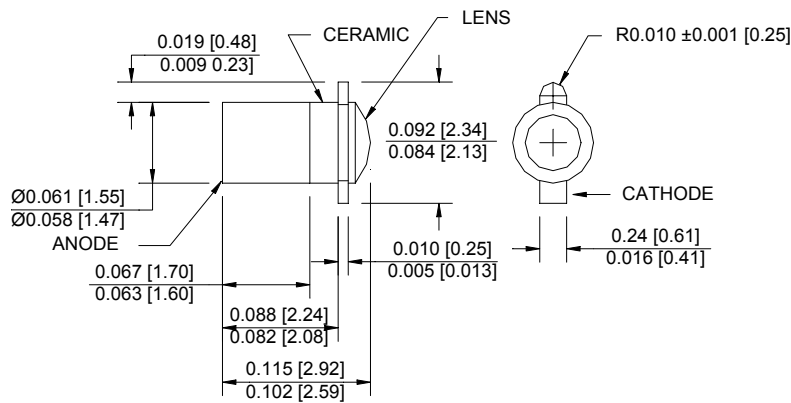
The **62000** is a P-N GaAs Infrared Light Emitting Diode in a lensed "pill" package designed to be mounted in a double-clad printed circuit board. It is spectrally and mechanically matched to companion phototransistors and photodarlington with its narrow beam angle lens and small size which make it ideal for use in optical encoders, card reader arrays, etc. Available binned to customer specifications and/or screened to MIL-PRF-19500.

**ABSOLUTE MAXIMUM RATINGS**

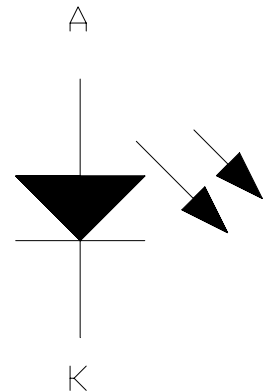
Storage Temperature.....	-65°C to +150°C
Operating Temperature .....	-65°C to +125°C
Reverse Voltage( at 25°C case temperature) .....	2Vdc
Forward Current-Continuous .....	100mA
Soldering Temperature (3 Minutes) .....	240°C

**Package Dimensions**

**Schematic Diagram**



ALL DIMENSIONS ARE IN INCHES [MILLIMETERS]



**ELECTRICAL CHARACTERISTICS**

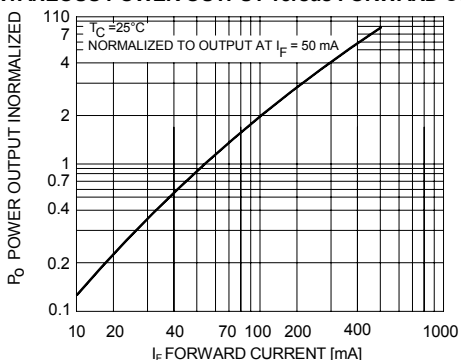
T<sub>A</sub> = 25°C unless otherwise specified.

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS	NOTE
Output Power	P <sub>O</sub>	0.25	0.3		mW	I <sub>F</sub> = 50mA	
		0.40	0.65				
		1.0	1.2				
		1.5	1.6				
Forward Voltage	V <sub>F</sub>			1.6	V	I <sub>F</sub> = 50mA	
Reverse Breakdown Voltage	B <sub>VR</sub>	2			V	I <sub>B</sub> = 10μA	
Radiation Rise Time	t <sub>R</sub>		0.7		μs		
Peak Wavelength	λ <sub>P</sub>		940		nm	I <sub>F</sub> = 50mA	
Beam Angle	θ		20		degrees		1
Forward Max Continuous Current	I <sub>F(MAX)</sub>			100	mA	25°C Case	

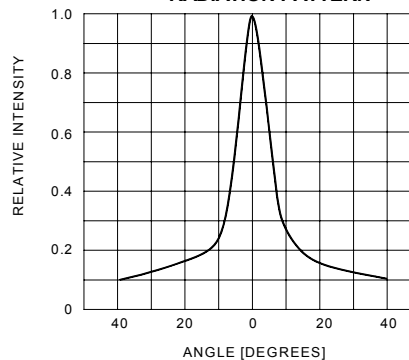
**NOTES:**

1. Low profile 40° lens also available.

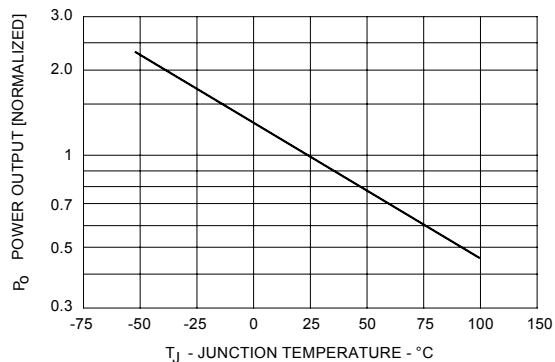
**INSTANTANEOUS POWER OUTPUT versus FORWARD CURRENT**



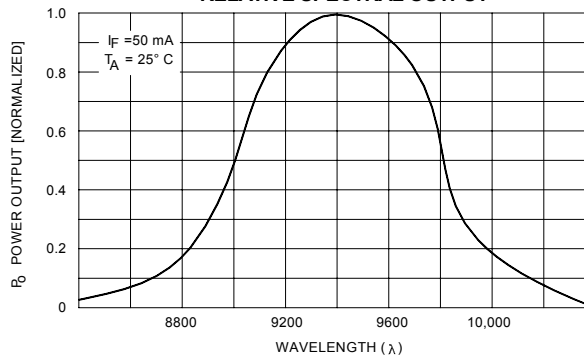
**RADIATION PATTERN**



**POWER OUTPUT versus JUNCTION TEMPERATURE**



**RELATIVE SPECTRAL OUTPUT**



**RECOMMENDED OPERATING CONDITIONS:**

PARAMETER	SYMBOL	MIN	MAX	UNITS
Forward Current	$I_F$	50	100	mA

**SELECTION GUIDE**

PART NUMBER	PART DESCRIPTION	P <sub>o</sub> Range
62000-001	GaAs LED in pill package, commercial version	+0.25 mW
62000-101	GaAsLED in pill package (-55° to +100°C) with 100% screening	+0.25 mW
62000-002	GaAs LED in pill package, commercial version	+0.4 mW
62000-102	GaAsLED in pill package (-55° to +100°C) with 100% screening	+0.4 mW
62000-003	GaAs LED in pill package, commercial version	+1 mW
62000-103	GaAsLED in pill package (-55° to +100°C) with 100% screening	+1 mW
62000-004	GaAs LED in pill package, commercial version	+1.5 mW
62000-104	GaAsLED in pill package (-55° to +100°C) with 100% screening	+1.5 mW

This datasheet has been download from:

[www.datasheetcatalog.com](http://www.datasheetcatalog.com)

Datasheets for electronics components.