

# GaAs LIGHT-EMITTING DIODE "PILL PACK" 62000 (TYPE GS 1140)



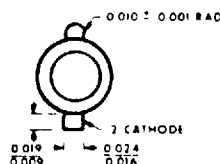
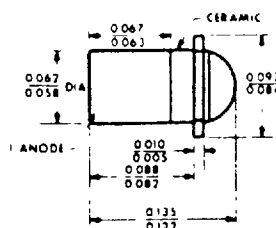
\* HIGH INTENSITY GaAlAs VERSIONS AVAILABLE

T-41-11

MINIATURE HIGH EFFICIENCY LED  
GLASS/CERAMIC/KOVAR HERMETIC PACKAGE

Mii 62000 is a P-N GaAs Infrared Light Emitting Diode in a package designed to be mounted in a double-clad printed circuit board. It is spectrally and mechanically matched to companion phototransistors and photodarlingtons and is lensed to provide good light transfer and to minimize crosstalk. Available screened to MIL-S-19500.

## PHYSICAL DESCRIPTION



ALL DIMENSIONS ARE IN INCHES



## OPTICAL/ELECTRICAL CHARACTERISTICS AT 25°C

| PARAMETER      | OPTICAL POWER         |      | FORWARD DROP          | REVERSE BREAKDOWN              | RADIATION RISE TIME | PEAK WAVELENGTH       | BEAM ANGLE | FWD CURRENT CONTINUOUS |
|----------------|-----------------------|------|-----------------------|--------------------------------|---------------------|-----------------------|------------|------------------------|
| TEST CONDITION | $I_F = 50 \text{ mA}$ |      | $I_F = 50 \text{ mA}$ | $I_R = 10 \text{ }\mu\text{A}$ |                     | $I_F = 50 \text{ mA}$ | Note 1     | 25°C Case              |
| SYMBOL         | $P_o$                 |      | $V_F$                 | $BV_R$                         | $t_r$               | $\lambda_P$           | $\theta$   | $I_F$                  |
| UNIT           | mW                    |      | VOLTS                 | VOLTS                          | $\mu\text{sec}$     | nm                    | degrees    | mA                     |
|                | MIN                   | TYP  | MAX                   | MIN                            | TYP                 | TYP                   | TYP        | MAX                    |
| GS 1140-1      | 0.25                  | 0.30 | 1.6                   | 2.0                            | 0.7                 | 940                   | 20         | 100                    |
| GS 1140-2      | 0.40                  | 0.65 | 1.6                   | 2.0                            | 0.7                 | 940                   | 20         | 100                    |
| GS 1140-3      | 1.00                  | 1.20 | 1.6                   | 2.0                            | 0.7                 | 940                   | 20         | 100                    |
| GS 1140-4      | 1.50                  | 1.60 | 1.6                   | 2.0                            | 0.7                 | 940                   | 20         | 100                    |

STD domed lens angle between halfintensity points  
Low profile point = 40°

\* Contact factory for 62005

# Ga As LIGHT-EMITTING DIODE, TYPE GS 1140, *Continued*

## 62000 LIGHT EMITTING DIODE

### ABSOLUTE MAXIMUM RATINGS 25°C FREE AIR TEMPERATURE UNLESS NOTED

|                                                                |                |
|----------------------------------------------------------------|----------------|
| Reverse Voltage at 25°C Case Temperature                       | 2 V            |
| Continuous Forward Current at 25°C Case Temperature (See Note) | 100 mA         |
| Operating Case 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 1 mA/°C.

### TYPICAL CHARACTERISTICS

