

62017 GaAIAs LIGHT EMITTING DIODE, "PIGTAIL PACKAGE"



06/23/03

Features:

- Hermetically sealed
- High output, 880nm
- Small package
- Suitable for high-density mountable
- Welded loop lead available

Applications:

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

DESCRIPTION

The **62017** is a GaAIAs Infrared Light Emitting Diode in a small outline package designed to be housing mounted. 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. This device is also available with a lead attached to the case so that it may be connected without the use of a printed board. Available binned to customer specifications and/or screened to MIL-PRF-19500.

ABSOLUTE MAXIMUM RATINGS

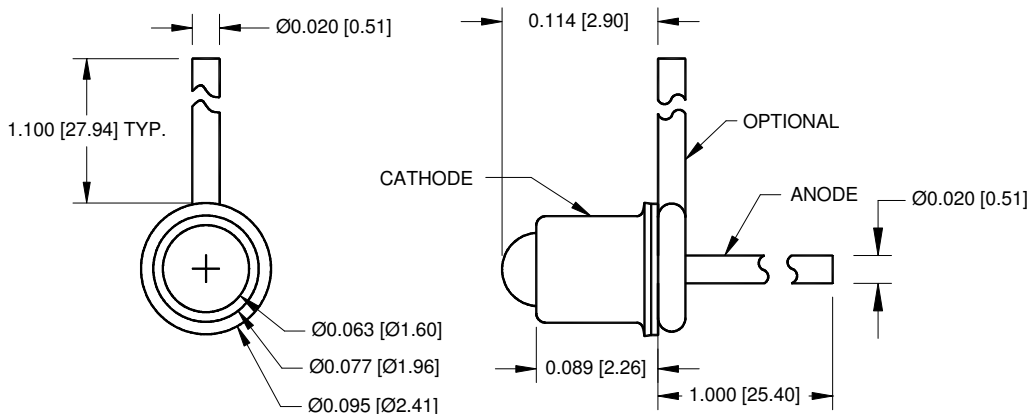
Reverse Voltage(at 25°C case temperature)	3 Vdc
Forward Current-Continuous	100mA
Storage Temperature.....	-65°C to +150°C
Operating Temperature	-55°C to +125°C
Soldering Temperature (10 seconds max, 1/16" from case)	240°C

NOTES:

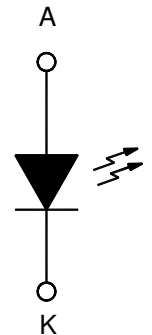
1. Derate linearly to 125°C case temperature at the rate of 1mA/°C above 25°C.

Package Dimensions

Schematic Diagram



ALL DIMENSIONS ARE IN INCHES [MILLIMETERS]



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ELECTRICAL CHARACTERISTICS

T_A = 25°C unless otherwise specified.

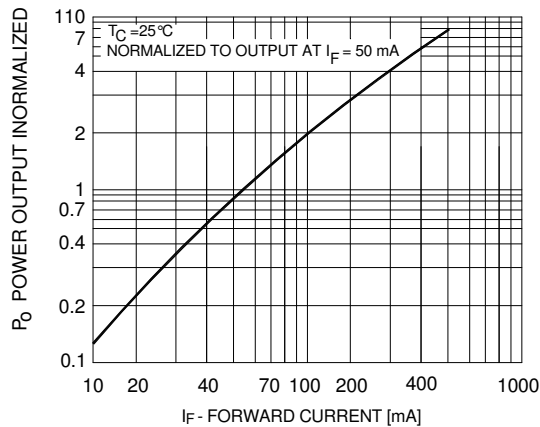
GaAIAs LIGHT-EMITTING DIODE, "PIGTAIL PACKAGE"

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS	NOTE
Output Power 62017-X01 62017-X02 62017-X03 62017-X04	P _O	0.20 0.35 0.70 1.25			mW	I _F = 50mA	
Forward Voltage 62017-X0X	V _F			1.6	V	I _F = 50mA	
Reverse Breakdown Voltage 62017-X0X	B _{VR}	2			V	I _H = 10μA	
Radiation Rise Time 62017-X0X	t _R		0.7		μs		
Peak Wavelength 62017-X0X	λ _P		880		nm	I _F = 50mA	
Beam Angle 62017-X0X	θ		12		degrees		1

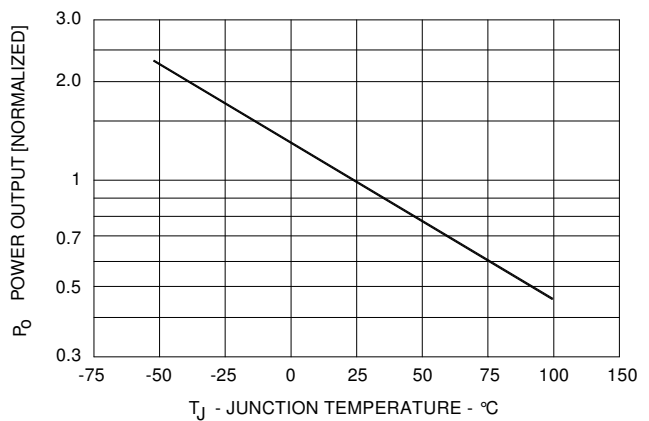
NOTES:

- Angle between half-intensity points.

**INSTANTANEOUS POWER OUTPUT
versus FORWARD CURRENT**



**POWER OUTPUT
versus JUNCTION TEMPERATURE**



SELECTION GUIDE

PART NUMBER	PART DESCRIPTION	P _O (min)
62017-001	Commercial	0.20 mW
62017-101	Screened	0.20 mW
62017-002	Commercial	0.35 mW
62017-102	Screened	0.35 mW
62017-003	Commercial	0.70 mW
62017-103	Screened	0.70 mW
62017-004	Commercial	1.25 mW
62017-104	Screened	1.25 mW

NOTE: Add L to end of dash number to signify addition of loop lead requirement.