



# GaAlAs T-1 3/4 STANDARD 5 $\phi$ HIGH SPEED INFRARED EMITTING DIODE LTE-3375/LTE-3376

## FEATURE

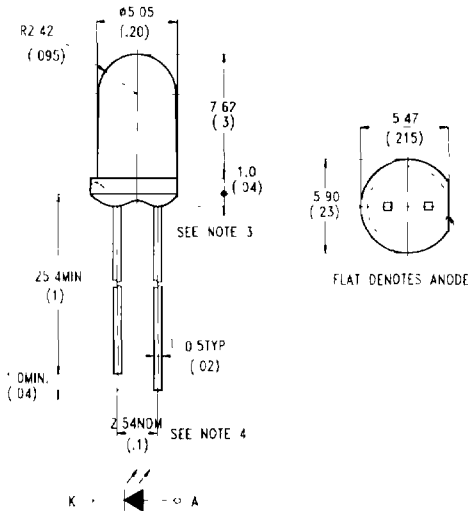
- LTE-3376 IrDA Compatible
- Special for high current and low forward voltage
- High power
- Available for pulse operating
- Wide viewing angle
- High speed response

## DESCRIPTION

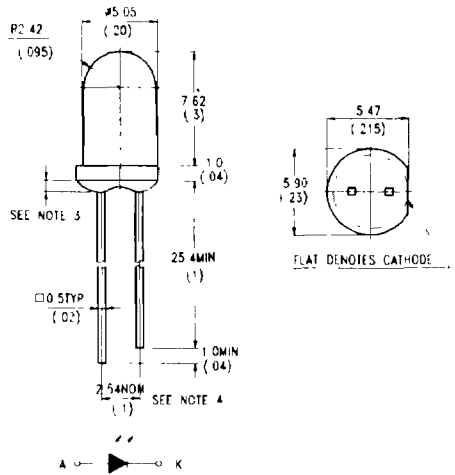
The LTE-3375/LTE-3376 are high intensity Gallium Aluminum Arsenide infrared emitting diodes mounted in clear plastic end looking packages. The LTE-3375/LTE-3376 series are high speed response for data communication application.

## PACKAGE DIMENSIONS

### LTE-3375



### LTE-3376



## NOTES

- 1 All dimensions are in millimeters (inches)
- 2 Tolerance is  $\pm 0.25$ mm (0.010") unless otherwise noted
- 3 Protruded resin under flange is 1.5mm (0.059") max
- 4 Lead spacing is measured where the leads emerge from the package
- 5 Specifications are subject to change without notice

### ABSOLUTE MAXIMUM RATINGS AT T<sub>A</sub>=25°C

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation	200	mW
Peak Forward Current (300pps, 10 μs pulse)	1	A
Continuous Forward Current	80	mA
Reverse Voltage	5	V
Operating Temperature Range	-55°C to + 100°C	
Storage Temperature Range	-55°C to + 100°C	
Lead Soldering Temperature [1.6mm (.063 in.) from body]	260°C for 5 Seconds	

INFRARED PRODUCTS

### ELECTRICAL OPTICAL CHARACTERISTICS AT T<sub>A</sub>=25°C

PARAMETER	SYMBOL	PART NO.	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
*Aperture Radiant Incidence	E <sub>e</sub>	LTE-3375	5.0	8.0		mW/cm <sup>2</sup>	I <sub>F</sub> =50mA
		LTE-3376	4.0	6.0			
Radiant Intensity	I <sub>e</sub>	LTE-3375	37	60		mW/sr	I <sub>F</sub> =50mA
		LTE-3376	30	45			
Peak Emission Wavelength	λ <sub>Peak</sub>	LTE-3375		840		nm	I <sub>F</sub> =50mA
		LTE-3376		850			
Spectral Line Half-Width	Δλ			50		nm	I <sub>F</sub> =50mA
Forward Voltage	V <sub>F</sub>	LTE-3375		2.1	2.5	V	I <sub>F</sub> =50mA
		LTE-3376		1.6	2.0		
Reverse Current	I <sub>R</sub>				100	μA	V <sub>R</sub> =5V
Viewing Angle (See FIG.6)	2θ <sub>1/2</sub>			30		deg.	
Rise/Fall Time	T <sub>r</sub> /T <sub>f</sub>			30		nS	10%~90%

Note \*E<sub>e</sub> is measurement of the average apertured radiant incidence upon a sensing area 1 cm<sup>2</sup> in perpendicular to and centered on the mechanical axis of the lens, and 26.8mm from lens

# TYPICAL ELECTRICAL/OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

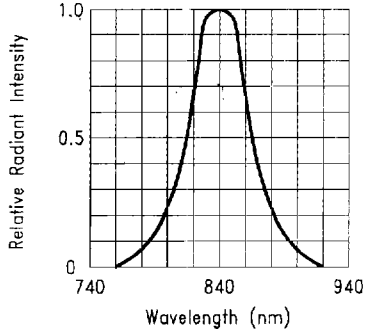


FIG.1 SPECTRAL DISTRIBUTION

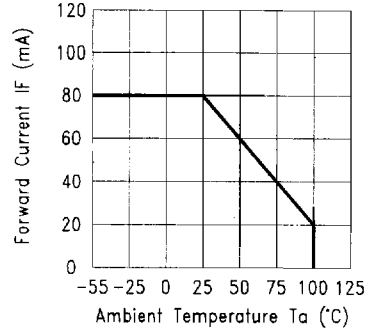


FIG.2 FORWARD CURRENT VS. AMBIENT TEMPERATURE

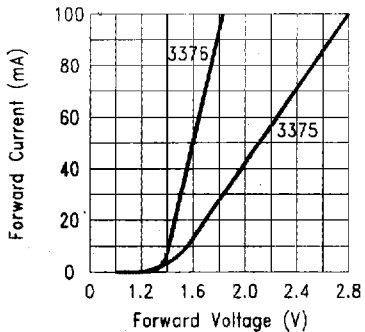


FIG.3 FORWARD CURRENT VS. FORWARD VOLTAGE

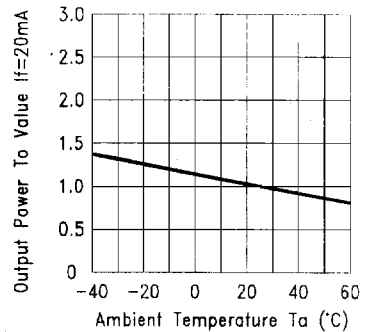


FIG.4 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

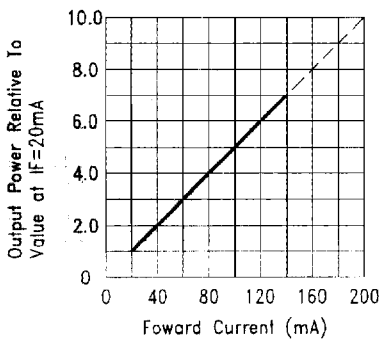


FIG.5 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

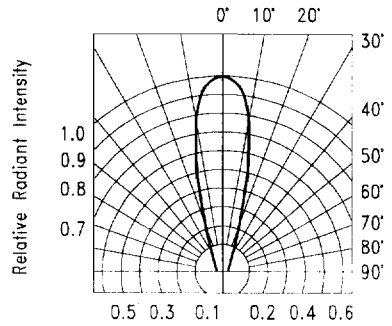


FIG.6 RADIATION DIAGRAM