LITE-ON LED SPECIALIST

GaAs PLASTIC SIDE LOOK INFRARED EMITTING DIODE

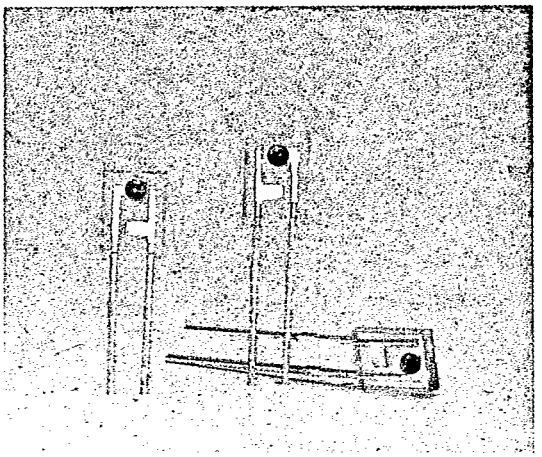
LTE-301

INFRARED PRODUCTS

T-41-11

FEATURES

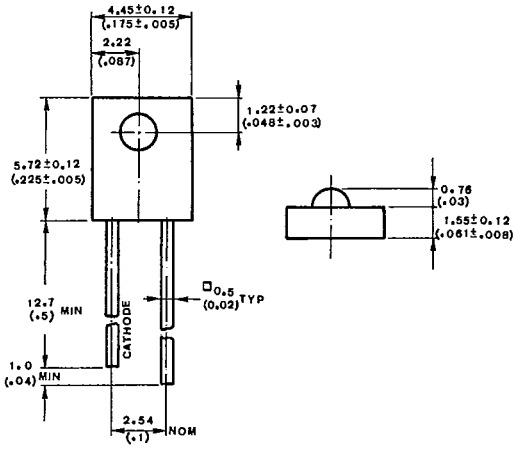
- SELECTED TO SPECIFIC ON-LINE INTENSITY AND RADIANT INTENSITY RANGES.
- LOW COST, MINIATURE PLASTIC SIDE LOOKING PACKAGE.
- MECHANICALLY AND SPECTRALLY MATCHED TO THE LTR-301 SERIES OF PHOTOTRANSISTOR.



DESCRIPTION

The LTE-301 series are high intensity Gallium Arsenite infrared emitting diodes mounted in clear plastic side looking packages. The LTE-301 series provides a broad range of intensity selection.
All electrical parameters are 100% tested by manufacturing. The specifications are guaranteed to a cumulative .65% and Ee limits which are guaranteed to a 2.5% AQL.

PACKAGE DIMENSION



NOTES:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25 mm (.010") unless otherwise noted.
3. Protruded resin under flange is 1.5mm (.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_A = 25°C

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation	100	mW
Peak Forward Current (300pps, 1μs Pulse)	3	A
Continuous Forward Current	50	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 (0.063 in) From Body]	260°C for 5 Seconds	

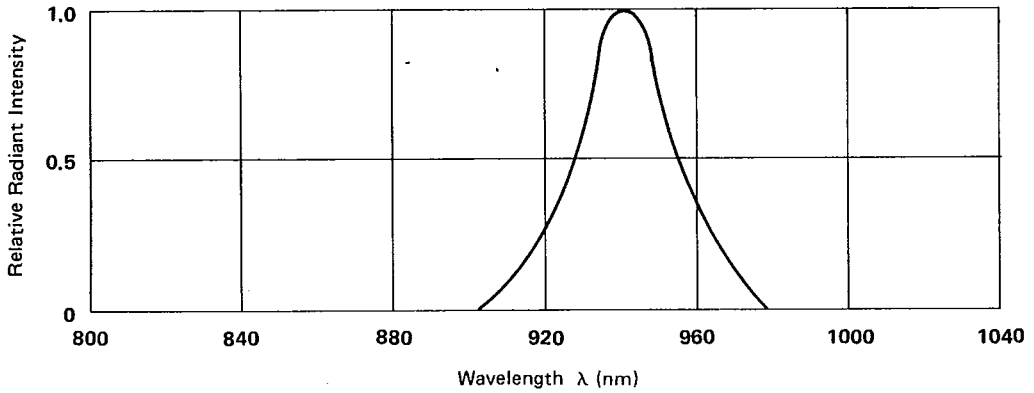


FIG. 1 SPECTRAL DISTRIBUTION

ELECTRICAL OPTICAL CHARACTERISTICS AT T_A = 25°C

PARAMETER	SYMBOL	PART NO. LTE–	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Aperture Radiant Incidence	Ee	301	0.05	0.15		mW/cm²	I_F = 20mA
Peak Emission Wavelength	λ PEAK			940		nm	I_F = 20mA
Spectral Line Half-Width	Δλ			50		nm	I_F = 20mA
Forward Voltage	V_F			1.2	1.6	V	I_F = 20mA
Reverse Current	I_R			0	100	μA	V_R = 5V
Vewing Angle (See Fig. 5)	2θ½			40		deg.	

TYPICAL ELECTRICAL/OPTICAL/CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

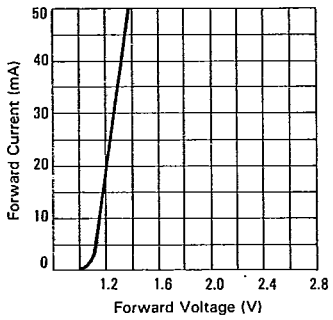


FIG. 2 FORWARD CURRENT VS. FORWARD VOLTAGE

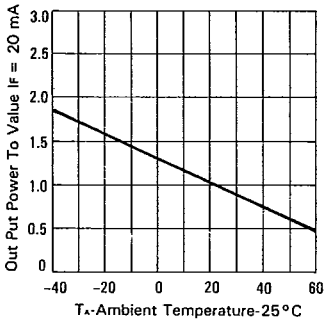


FIG. 3 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

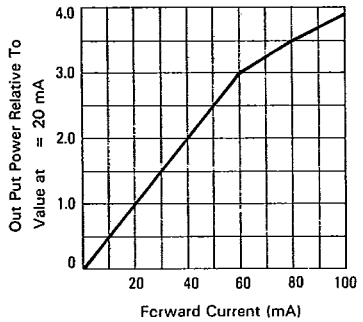


FIG. 4 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

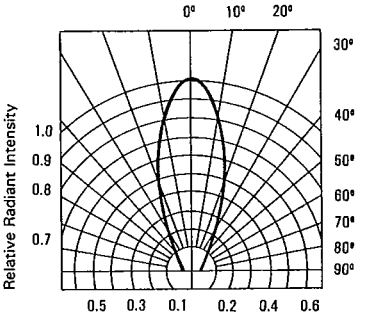


FIG. 5 RADIATION DIAGRAM