ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089

NTE3099
Infrared Emitting Diode
Bi–Directional

Features:

- Bi–Directional Light Emission Type
- High Output: Φ_e = 1mW Typ at I_F = 20mA

Applications:

- Light Source for Tape End Detector for VHS type VCR's

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

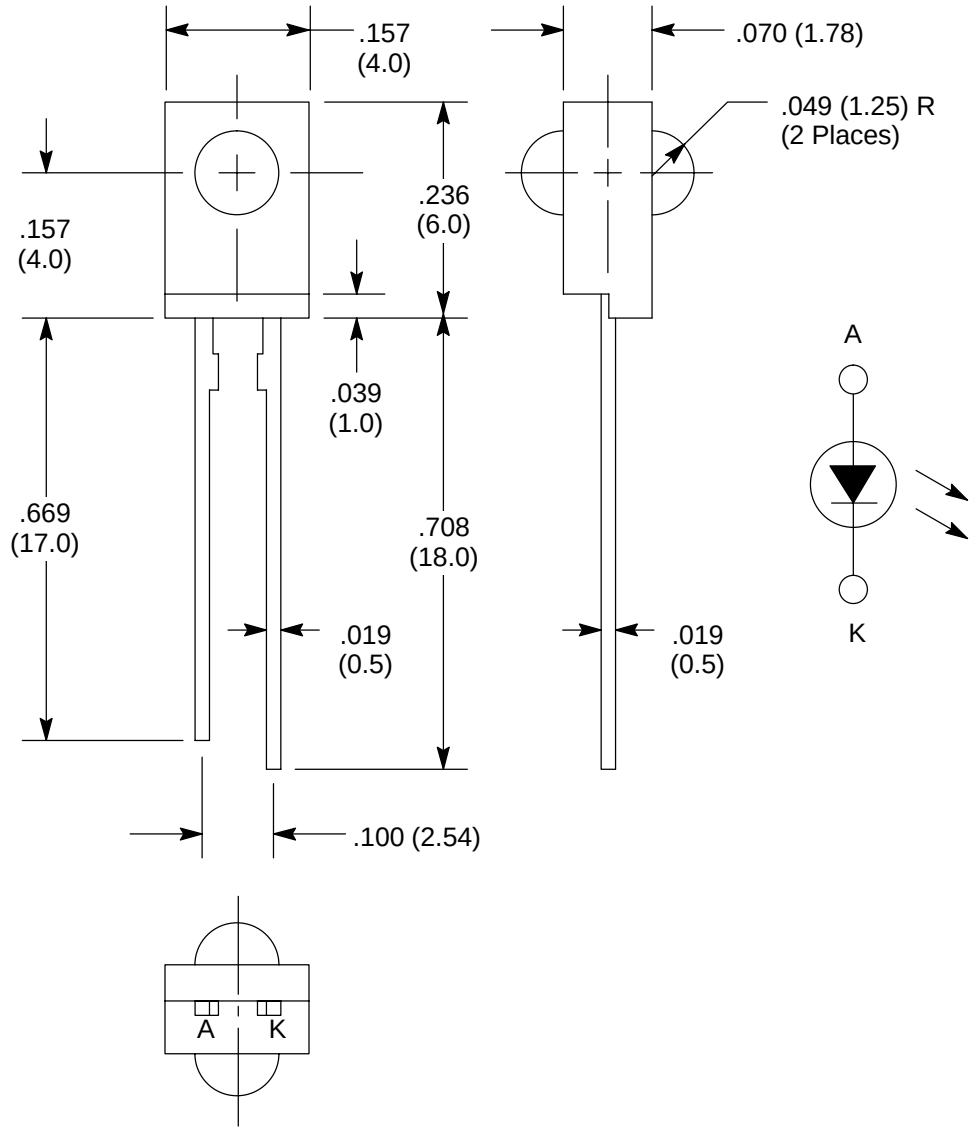
Power Dissipation, P_D 75mW
Forward Current, I_F 50mA
Peak Forward Current (Note 1), I_{FM} 1A
Reverse Voltage, V_R 6V
Operating Junction Temperature Range, T_{opr} . . . . . –25° to +85°C
Storage Temperature Range, T_{stg} . . . . . –40° to +85°C
Lead Temperature (During Soldering, Note 2), T_L . . . . . +260°C

Note 1. Pulse Width ≤ 100μs, Duty Ratio = 0.01

Note 2. For 3 seconds at a distance of 2.5mm from the bottom face of the resin package.

Electro–Optical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	I_F = 20mA	–	1.2	1.4	V
Peak Forward Voltage	V_{FM}	I_{FM} = 500mA	–	3.0	4.0	V
Reverse Current	I_R	V_R = 3V	–	–	10	μA
Terminal Capacitance	C_t	V = 0, f = 1MHz	–	50	100	pF
Radiant Flux	Φ_e	I_F = 20mA	0.7	1.0	2.0	mW
Peak Emission Wavelength	λp	I_F = 5mA	–	950	–	nm
Half Intensity Wavelength	Δλ	I_F = 5mA	–	45	–	nm


.157
(4.0)
.070 (1.78)
.049 (1.25) R
(2 Places)
.236
(6.0)
.157
(4.0)
.039
(1.0)
.669
(17.0)
.708
(18.0)
.019
(0.5)
.019
(0.5)
.100 (2.54)
A
K
A
K