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

NTE3122
Phototransistor
Silicon NPN, Narrow Acceptance, High Sensitivity, Darlington

Features:
- Epoxy Resin Package
- Narrow Acceptance: $\Delta\theta = \pm 13°$ Typ
- High Sensitivity: I_C = 1.5mA Min @ E_e = 0.1mW/cm^2
- Visible Light Cut–Off

Applications:
- VCRs, Cassette Tape Recorders
- Floppy Disk Drives
- Optoelectronic Switches
- Automatic Stroboscopes

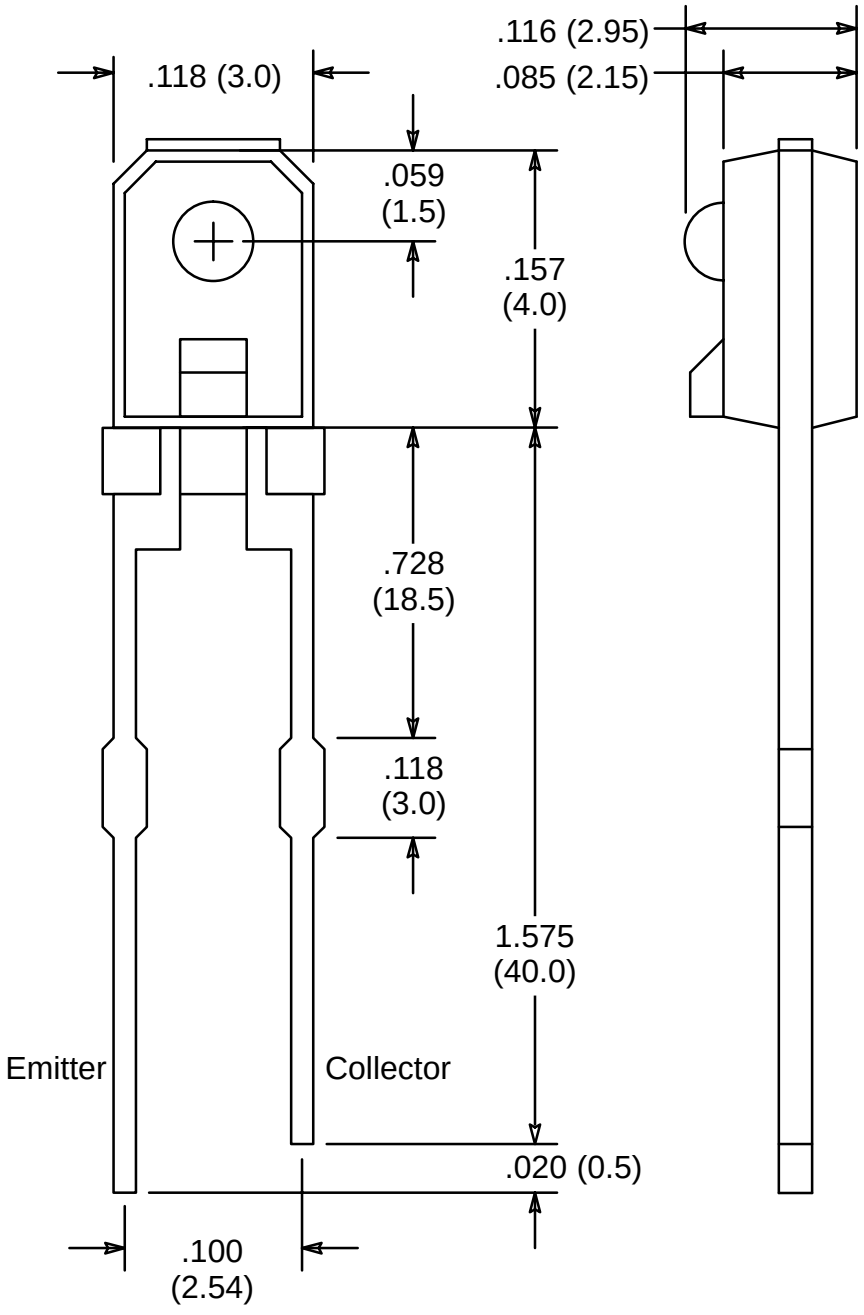
Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Collector–Emitter Voltage, V_{CEO} 35V
Emitter–Collector Voltage, V_{ECO} 6V
Collector Current, I_C 50mA
Collector Power Disspation, P_C 75mW
Operating Temperature Range, T_{opr} . . . . . –25° to +85°C
Storage Temperature Range, T_{stg} . . . . . –40° to +85°C
Lead Temperature, T_L
During Soldering, 1.4mm from bottom face of resin package, 5sec . . . . . +260°C

Electrical Characteristics:

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Current	I_C	V_{CE} = 2V, E_e = 0.1mW/cm^2, Note 1	1.5	–	4.0	mA
Collector Dark Current	I_{CBO}	V_{CE} = 10V, E_e = 0	–	–	10^{-6}	A
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 1.5mA, E_e = 1mW/cm^2, Note 1	–	0.7	1.0	V
Peak Emission Wavelength	λ_P		–	860	–	nm
Response Time (Rise)	t_r	V_{CE} = 2V, I_C = 10mA, R_L = 100Ω	–	80	–	µs
Response Time (Fall)	t_f		–	70	–	µs

Note 1. E_e: Irradiance by CIE standard light source A (tungsten lamp).


.116 (2.95)
.085 (2.15)
.118 (3.0)
.059
(1.5)
.157
(4.0)
.728
(18.5)
.118
(3.0)
1.575
(40.0)
Emitter
Collector
.020 (0.5)
.100
(2.54)