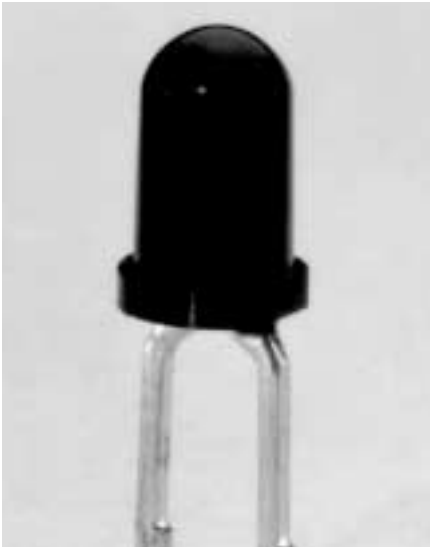


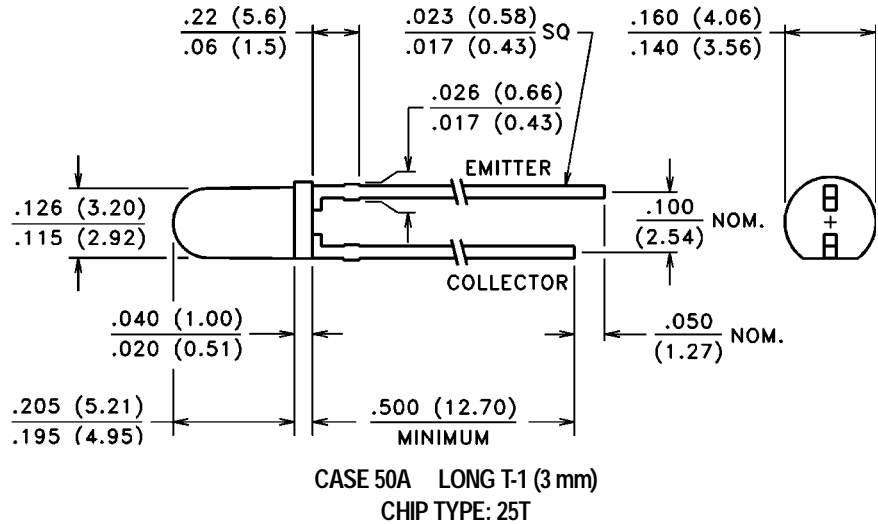
.025" NPN Phototransistors

IRT Long T-1 (3 mm) Plastic Package

VTT3423LA, 4LA, 5LA



PACKAGE DIMENSIONS inch (mm)



PRODUCT DESCRIPTION

A small area high speed NPN silicon phototransistor in a 3 mm diameter, lensed plastic package. The package material transmits infrared and blocks visible light. These devices are spectrally and mechanically matched to the VTE33xxLA series of IREDS.

ABSOLUTE MAXIMUM RATINGS ■

(@ 25°C unless otherwise noted)

| | |
|-------------------------------|---------------------------------|
| Maximum Temperatures | |
| Storage Temperature: | -40°C to 100°C |
| Operating Temperature: | -40°C to 100°C |
| Continuous Power Dissipation: | 50 mW |
| Derate above 30°C: | 0.71 mW/°C |
| Maximum Current: | 25 mA |
| Lead Soldering Temperature: | 260°C |
| | (1.6 mm from case, 5 sec. max.) |

ELECTRO-OPTICAL CHARACTERISTICS @ 25°C (See also typical curves, pages 91-92)

| Part Number ■ | Light Current | | Dark Current | | Collector Breakdown | Emitter Breakdown | Saturation Voltage | Rise/Fall Time | Angular Response $\theta_{1/2}$ | |
|---------------|---------------|---|--------------|---------------------|----------------------------|----------------------------|------------------------------|--------------------------------------|---------------------------------|----------------|
| | I_C | | I_{CEO} | | $V_{BR(CEO)}$ | $V_{BR(ECO)}$ | $V_{CE(SAT)}$ | t_R/t_F | | |
| | mA | H fc (mW/cm ²) $V_{CE} = 5.0$ V | H = 0 | | $I_C = 100 \mu A$ H = 0 | $I_E = 100 \mu A$ H = 0 | $I_C = 1.0$ mA H = 400 fc | $I_C = 1.0$ mA $R_L = 100 \Omega$ | | |
| | Min. | Max. | (nA) Max. | V_{CE} (Volts) | Volts, Min. | Volts, Min. | Volts, Max. | μsec , Typ. | | |
| VTT3423LA | 1.0 | — | 20 (1) | 100 | 10 | 30 | 5.0 | 0.25 | 3.0 | $\pm 10^\circ$ |
| VTT3424LA | 2.0 | — | 20 (1) | 100 | 10 | 30 | 5.0 | 0.25 | 4.0 | $\pm 10^\circ$ |
| VTT3425LA | 3.0 | — | 20 (1) | 100 | 10 | 30 | 5.0 | 0.25 | 5.0 | $\pm 10^\circ$ |

■ Refer to General Product Notes, page 2.