

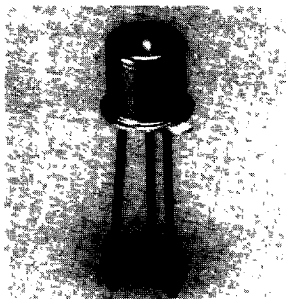
.040" NPN Phototransistors

Low Cost Hermetic TO-18 Lensed Pkg

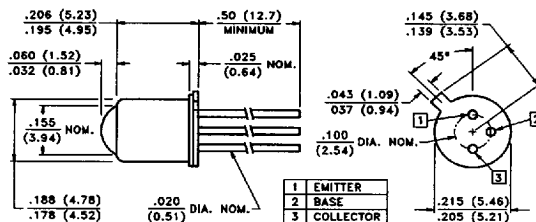
VTT0842, 43, 44

E G & G VACTEC

T-41-61



PACKAGE DIMENSIONS Inch (mm)



CASE 53A TO-18 HERMETIC (LENSED)
CHIP TYPE: 40T

PRODUCT DESCRIPTION

A medium area high speed NPN silicon phototransistor in a lensed, hermetically sealed, low cost TO-18 package. The hermetic package offers superior protection from hostile environments. The base connection is brought out allowing conventional transistor biasing. These devices are spectrally and mechanically matched to the VTE11xx series of IREDS.

ABSOLUTE MAXIMUM RATINGS ■ (@ 25°C unless otherwise noted)

Maximum Temperatures

Storage Temperature: **-55°C to 125°C**

Operating Temperature: **-55°C to 125°C**

Continuous Power Dissipation: **250 mW**

Derate above 30°C: **2.63 mW/°C**

Maximum Current: **50 mA**

Lead Soldering Temperature: **260°C**
(1.6 mm from case, 5 sec. max.)

ELECTRO-OPTICAL CHARACTERISTICS @ 25°C (See also 40T curves, pg. 23)

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 = 0	$I_C = 100 \mu A$ H = 0	$I_E = 100 \mu A$ H = 0	$I_C = 2.0 \text{ mA}$ $I_B = 50 \mu A$	$I_C = 1.0 \text{ mA}$ $R_L = 1 \text{ k}\Omega$			
	Min.	Max.	$\frac{\text{lux (mW/cm}^2\text{)}}{V_{CE} = 5.0 \text{ V}}$ (nA)	V_{CE} (Volts)	Volts, Min.	Volts, Min.	Volts, Max.		$\mu\text{sec, Typ.}$	Typ.
VTT0842	2.5	5.0	1000 (5)	200	25	50	5.0	0.25	6	$\pm 20^\circ$
VTT0843	4.0	8.0	1000 (5)	500	25	50	5.0	0.25	8	$\pm 20^\circ$
VTT0844	6.3	—	1000 (5)	500	25	50	5.0	0.25	12	$\pm 20^\circ$