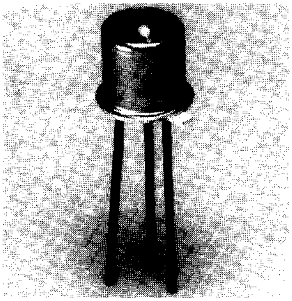
.050" NPN Phototransistors

TO-46 Lensed Package

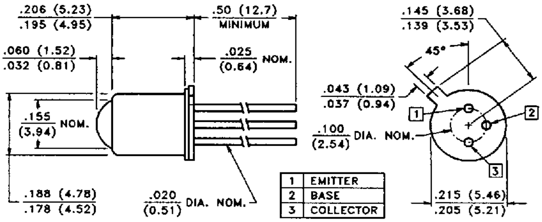
VTT1112, 13, 14

E G & G VACTEC

T-41-61



PACKAGE DIMENSIONS inch (mm)



CASE 3 TO-46 HERMETIC (LENSED)
CHIP TYPE: 50T

PRODUCT DESCRIPTION

A large area high sensitivity NPN silicon phototransistor in a lensed, hermetically sealed, TO-46 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: -40°C to 110°C
Operating Temperature: -40°C to 110°C

Continuous Power Dissipation: 250 mW
Derate above 30°C: 3.12 mW/ °C

Maximum Current: 200 mA

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

ELECTRO-OPTICAL CHARACTERISTICS @ 25°C (See also 50T curves, pg. 29)

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 µA H=0	I_E = 100 µA H=0	I_C = 1.0 mA H=400 fc	I_C = 1.0 mA R_L = 100 Ω	
	Min.	Max.		(nA) Max.	V_{CE} (Volts)	Volts, Min.	Volts, Min.	Volts, Max.	µsec, Typ.	Typ.
VTT1112	4.0	10.0	100 (5)	25	20	30	6.0	0.40	5.0	±15°
VTT1113	8.0	—	100 (5)	100	10	20	4.0	0.40	8.0	±15°
VTT1114	15.0	—	100 (5)	100	10	20	4.0	0.40	8.0	±15°

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■ Refer to General Product Notes, page 6.