

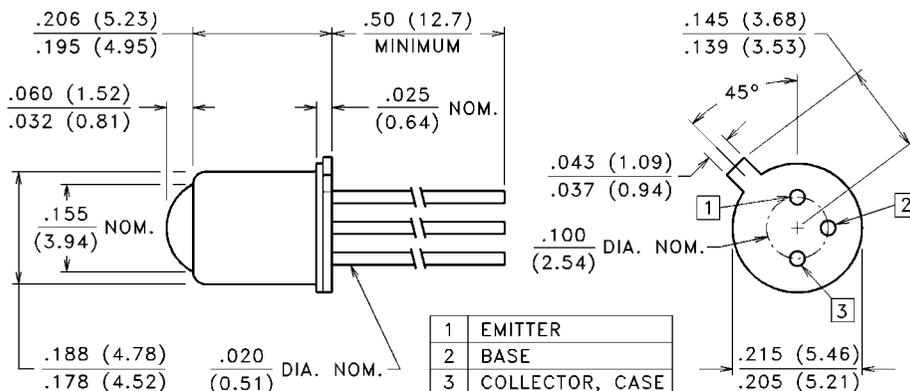
# .050" NPN Phototransistors

TO-46 Lensed Package

# VTT1115, 16, 17



## 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 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 typical curves, pages 91-92)

Part Number ■	Light Current			Dark Current		Collector Breakdown	Emitter Breakdown	Saturation Voltage	Rise/Fall Time	Angular Response $\theta_{1/2}$ Typ.
	$I_C$			$I_{CEO}$		$V_{BR(CEO)}$	$V_{BR(ECO)}$	$V_{CE(SAT)}$	$t_R/t_F$	
	mA		H fc (mW/cm <sup>2</sup> ) $V_{CE} = 5.0$ 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.	$\mu$ sec, Typ.		
VTT1115	1.0	—	20 (1)	100	10	30	6.0	0.40	5.0	$\pm 15^\circ$
VTT1116	2.0	—	20 (1)	100	10	30	4.0	0.40	8.0	$\pm 15^\circ$
VTT1117	4.0	—	20 (1)	100	10	30	4.0	0.40	8.0	$\pm 15^\circ$

■ Refer to General Product Notes, page 2.