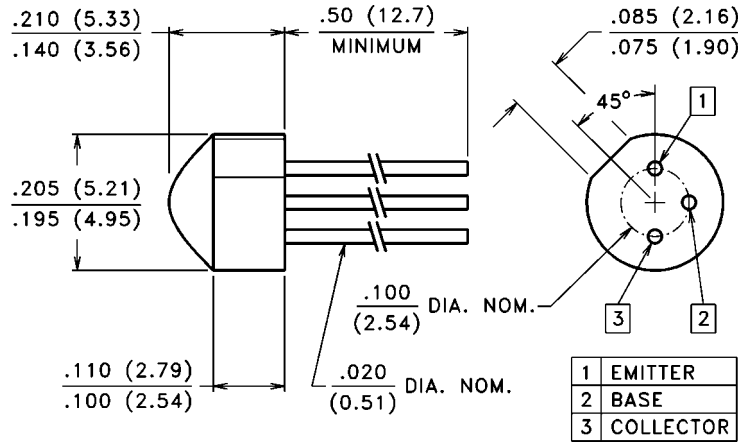


**PACKAGE DIMENSIONS inch (mm)**



**CASE 9 TO-106 (LENSED)  
CHIP TYPE: 40T**

**PRODUCT DESCRIPTION**

A medium area high sensitivity NPN silicon phototransistor in a recessed TO-106 ceramic package. The chip is protected with a lens of clear epoxy. The base connection is brought out allowing conventional transistor biasing. These devices are spectrally matched to any of PerkinElmer IREDS.

**RoHS Compliant**



**ABSOLUTE MAXIMUM RATINGS ■**

(@ 25°C unless otherwise noted)

Maximum Temperatures	
Storage Temperature:	-20°C to 70°C
Operating Temperature:	-20°C to 70°C
Continuous Power Dissipation:	100 mW
Derate above 30°C:	2.5 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 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 <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.	Typ.
VTT9102H	6.0	—	100 (5)	100	5	30	4.0	0.55	6.0	$\pm 42^\circ$
VTT9103H	13.0	—	100 (5)	100	5	30	4.0	0.55	10.0	$\pm 42^\circ$

■ Refer to General Product Notes, page 2.