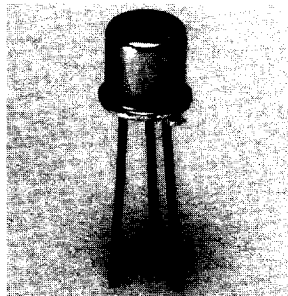


.050" NPN Photodarlington TO-46 Flat Window Package

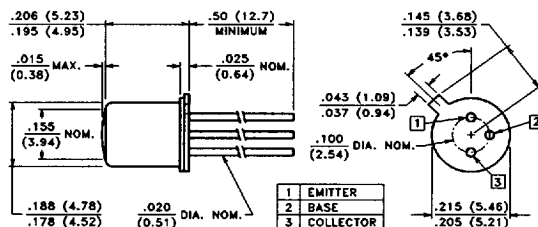
VTA1011, 12, 13

E G & G VACTEC

T-41-63



PACKAGE DIMENSIONS Inch (mm)



**CASE 1 TO-46 HERMETIC (FLAT WINDOW)
CHIP TYPE: 50A**

PRODUCT DESCRIPTION

A large area high sensitivity NPN silicon photodarlington in a flat 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 VTE10xx 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 50A curves, pg. 39)

Part Number	Light Current		Dark Current		Collector Breakdown	Emitter Breakdown	Saturation Voltage	Rise / Fall Time	Angular Response $\theta_{1/2}$	
	I _C		I _{CE0}		V _{BR(CEO)}	V _{BR(ECO)}	V _{CE(SAT)}	t _r / t _f		
	H		H=0		I _C = 100 μ A	I _E = 100 μ A	I _C = 1.0 mA	I _C = 1.0 mA		
	f _C (mW/cm ²)		(nA)		H=0	H=0	H=400 f _C	R _L = 100 Ω		
	mA	V _{CE} = 5.0 V	(nA)	V _{CE} (Volts)	Volts, Min.	Volts, Min.	Volts, Max.	μ sec, Typ.		
VTA1011	1.0	4.0	4.0 (0.2)	100	10	50	6.0	1.5	60	$\pm 35^\circ$
VTA1012	3.0	10.0	4.0 (0.2)	500	10	40	6.0	1.5	120	$\pm 35^\circ$
VTA1013	8.0	—	4.0 (0.2)	1000	10	30	6.0	1.5	250	$\pm 35^\circ$