

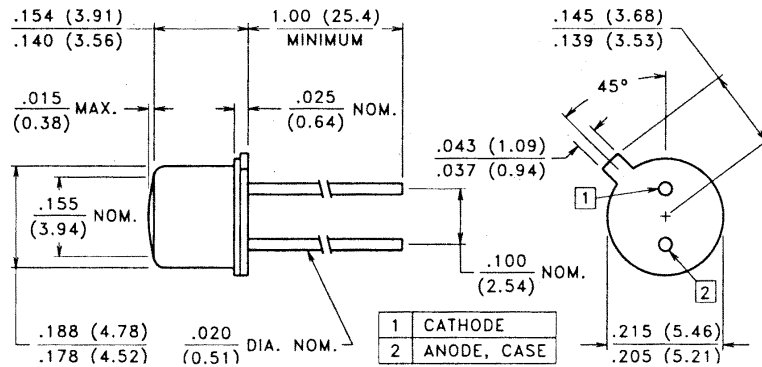
# GaAs Infrared Emitting Diodes

TO-46 Flat Window Package — 940 nm

# VTE1013



## PACKAGE DIMENSIONS inch (mm)



CASE 24A TO-46 HERMETIC (Flat Window)  
CHIP SIZE: .018" X .018"

## DESCRIPTION

This wide beam angle TO-46 hermetic emitter contains a large area, double wirebonded, GaAs, 940 nm IRED chip suitable for higher current pulse applications.

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

Maximum Temperatures		Maximum Reverse Voltage:	5.0V
Storage and Operating:	-55°C to 125°C	Maximum Reverse Current @ $V_R = 5V$ :	10 $\mu A$
Continuous Power Dissipation:	200 mW	Peak Wavelength (Typical):	940 nm
Derate above 30°C:	2.11 mW/°C	Junction Capacitance @ 0V, 1 MHz (Typ.):	35 pF
Maximum Continuous Current:	100 mA	Response Time @ $I_F = 20$ mA	
Derate above 30°C:	1.05 mA/°C	Rise: 1.0 $\mu s$ Fall: 1.0 $\mu s$	
Peak Forward Current, 10 $\mu s$ , 100 pps:	3.0 A	Lead Soldering Temperature:	260°C
Temp. Coefficient of Power Output (Typ.):	-8%/°C	(1.6 mm from case, 5 seconds max.)	

## ELECTRO-OPTICAL CHARACTERISTICS @ 25°C (See also GaAIAs curves, pages 123-124)

Part Number ■	Output							Forward Drop		Half Power Beam Angle
	Irradiance				Radiant Intensity	Total Power	Test Current	$V_F$		
	$E_e$		Condition		$I_e$	$P_O$	$I_{FT}$	@ $I_{FT}$		$\theta_{1/2}$
	mW/cm <sup>2</sup>		distance	Diameter	mW/sr	mW	mA (Pulsed)	Volts		Typ.
	Min.	Typ.	mm	mm	Min.	Typ.		Typ.	Max.	
VTE1013	2.1	2.7	36	6.4	27	30	1.0	1.9	2.5	$\pm 35^\circ$

■ Refer to General Product Notes, page 2.