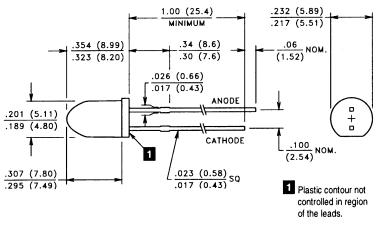
## **GaAlAs Infrared Emitting Diodes**

#### T-1¾ (5 mm) Bullet Package — 880 nm

# VTE1295H



### PACKAGE DIMENSIONS inch (mm)



CASE 62 T-1¾ (5 mm) BULLET CHIP SIZE: .015" x .015"

DESCRIPTION

This 5 mm diameter, custom lensed device contains a medium area, single wirebonded, GaAlAs, 880 nm high efficiency IRED chip. The custom lens allows this cost effective device to have a very narrow half power beam emission of  $\pm 8^{\circ}$ . This device is a UL recognized component for smoke alarm applications (UL file #S3506).

### **RoHS Compliant**



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

Maximum Temperatures		Maximum Reverse Voltage:	5.0V
Storage and Operating:	-40°C to 100°C	Maximum Reverse Current @ V <sub>R</sub> = 5V:	10 µA
Continuous Power Dissipation:	200 mW	Peak Wavelength (Typical):	880 nm
Derate above 30°C:	2.86 mW/°C	Junction Capacitance @ 0V, 1 MHz (Typ.):	23 pF
Maximum Continuous Current:	100 mA	Response Time @ I <sub>F</sub> = 20 mA	
Derate above 30°C:	1.43 mA/°C	Rise: 1.0 µs Fall: 1.0 µs	
Peak Forward Current, 10 µs, 100 pps:	2.5 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 GaAlAs curves, pages 108-110)

Part Number	Output					Forwar	d Drop	Half Power Beam		
	Irradiance			Radiant Intensity	Total Power	Test Current	v	America		
	E <sub>e</sub> Conditio		dition	Ι <sub>e</sub>	P <sub>O</sub>	I <sub>FT</sub>	@	I <sub>FT</sub>	θ <sub>1/2</sub>	
	mW/cm <sup>2</sup>		distance	Diameter	mW/sr	mW	mA	Volts		Turn
	Min.	Тур.	mm	mm	Min.	Тур.	(Pulsed) Typ.	Max.	Тур.	
VTE1295H	3.0	5.5	36	6.4	39	20	100	1.5	2.0	±8°

Refer to General Product Notes, page 2.

