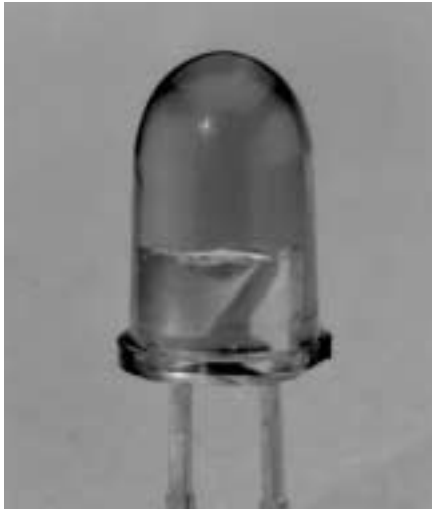


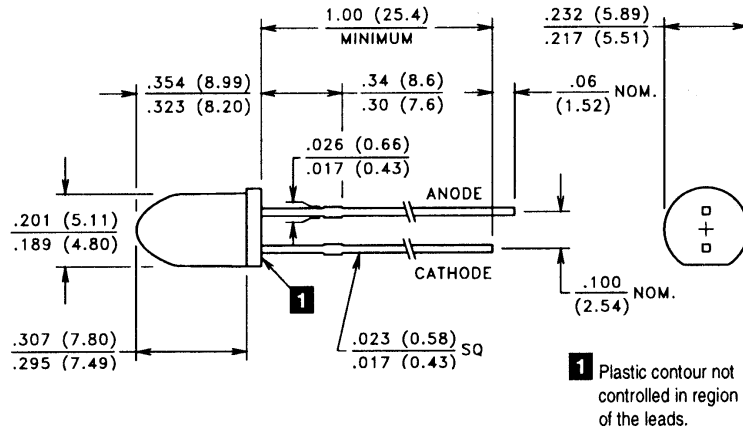
GaAlAs Infrared Emitting Diodes

T-1 $\frac{3}{4}$ (5 mm) Bullet Package — 880 nm

VTE1295



PACKAGE DIMENSIONS inch (mm)



CASE 62 T-1 $\frac{3}{4}$ (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).

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 @ $V_R = 5V$:	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 @ $I_F = 20$ 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						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 ²	distance	Diameter	mW/sr	mW	mA (Pulsed)	Volts		Typ.	
	Min.	Typ.	mm	mm	Min.		Typ.	Max.		
VTE1295	3.0	5.5	36	6.4	39	20	100	1.5	2.0	$\pm 8^\circ$

■ Refer to General Product Notes, page 2.