

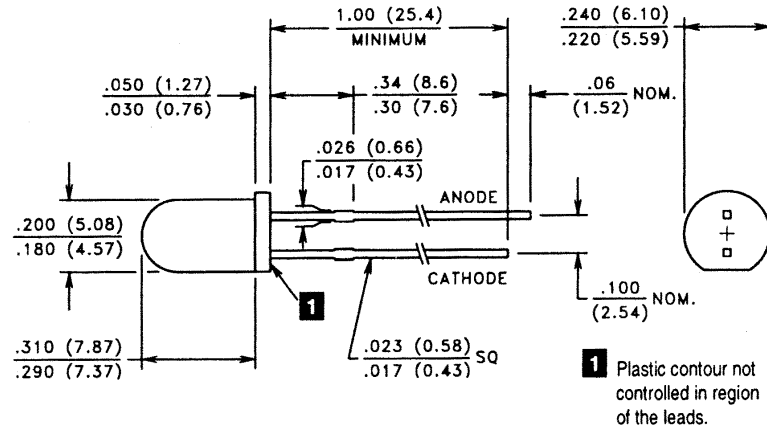
# GaAlAs Infrared Emitting Diodes

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

# VTE1281-1, -2



## PACKAGE DIMENSIONS inch (mm)



CASE 26 T-1 $\frac{3}{4}$  (5 mm)  
CHIP SIZE: .015" x .015"

## DESCRIPTION

This narrow beam angle 5 mm diameter plastic packaged emitter contains a medium area, single wirebonded, GaAlAs, 880 nm, high efficiency IRED chip. It is designed to be cost effective in moderate pulse drive applications.

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

Maximum Temperatures									
Storage and Operating:		-40°C to 100°C		Maximum Reverse Voltage:		5.0V			
Continuous Power Dissipation:		200 mW		Maximum Reverse Current @ $V_R = 5V$ :		10 $\mu A$			
Derate above 30°C:		2.86 mW/°C		Peak Wavelength (Typical):		880 nm			
Maximum Continuous Current:		100 mA		Junction Capacitance @ 0V, 1 MHz (Typ.):		23 pF			
Derate above 30°C:		1.43 mA/°C		Response Time @ $I_F = 20 mA$					
Peak Forward Current, 10 $\mu s$ , 100 pps:		2.5 A		Rise: 1.0 $\mu s$ Fall: 1.0 $\mu s$					
Temp. Coefficient of Power Output (Typ.):		-8%/°C		Lead Soldering Temperature:		260°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 <sup>2</sup>	distance	Diameter	mW/sr	mW	mA	Volts			
	Min.	Typ.	mm	mm	Min.	Typ.	(Pulsed)	Typ.	Max.	Typ.
VTE1281-1	2.5	3.3	36	6.4	32	20	100	1.5	2.0	$\pm 10^\circ$
VTE1281-2	5.0	6.5	36	6.4	65	25	100	1.5	2.0	$\pm 10^\circ$

■ Refer to General Product Notes, page 2.