

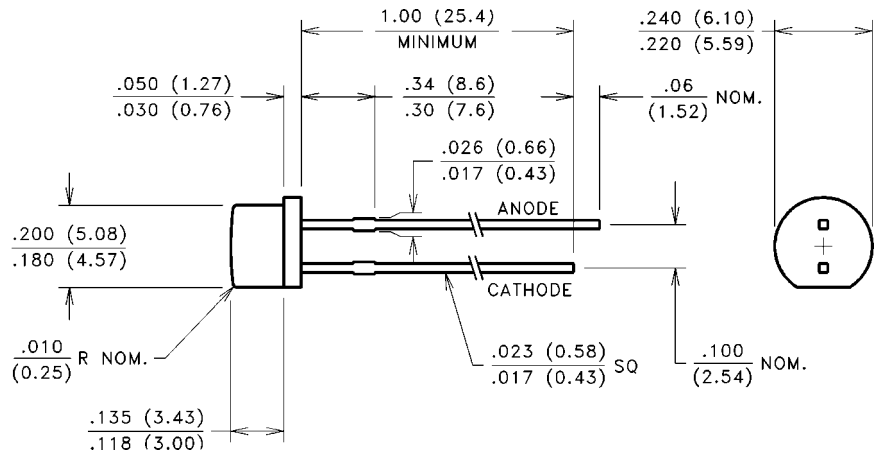
# GaAlAs Infrared Emitting Diodes

Flat T-1¼ (5 mm) Plastic Package — 880 nm

## VTE1281F



### PACKAGE DIMENSIONS inch (mm)



CASE 26F T-1¼ (5 mm) FLAT  
CHIP SIZE: .015" x .015"

### DESCRIPTION

This 5 mm diameter plastic packaged emitter has no lens. It is designed to be coupled to plastic fibers or used to illuminate an external lens. It contains a medium area, single wirebonded, GaAlAs 880 nm chip and is designed to be cost effective in moderate pulse drive applications.

### 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 $\mu A$
Continuous Power Dissipation:	150 mW	Peak Wavelength (Typical):	880 nm
Derate above 30°C:	2.14 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 $\mu s$ Fall: 1.0 $\mu s$	
Peak Forward Current, 10 $\mu s$ , 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 <sup>2</sup>		distance	Diameter	mW/sr	mW	mA (Pulsed)	Volts		Typ.
	Min.	Typ.	mm	mm	Min.	Typ.		Typ.	Max.	
VTE1281F	0.16	0.21	36	6.4	2.1	20	100	1.5	2.0	$\pm 45^\circ$

■ Refer to General Product Notes, page 2.