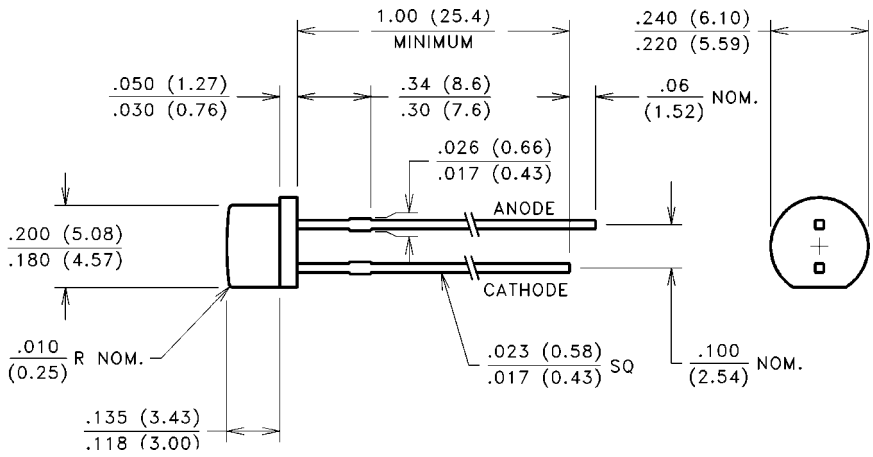
GaAlAs Infrared Emitting Diodes

Flat T-1¾ (5 mm) Plastic Package — 880 nm

VTE1281F

PACKAGE DIMENSIONS inch (mm)



CASE 26F T-1¾ (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	
Storage and Operating:	-40°C to 100°C
Continuous Power Dissipation:	150 mW
Derate above 30°C:	2.14 mW/°C
Maximum Continuous Current:	100 mA
Derate above 30°C:	1.43 mA/°C
Peak Forward Current, 10 µs, 100 pps:	2.5 A
Temp. Coefficient of Power Output (Typ.):	-.8%/°C

Maximum Reverse Voltage:	5.0V
Maximum Reverse Current @ V_R = 5V:	10 µA
Peak Wavelength (Typical):	880 nm
Junction Capacitance @ 0V, 1 MHz (Typ.):	23 pF
Response Time @ I_F = 20 mA	
Rise: 1.0 µs Fall: 1.0 µs	
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/cm²		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	±45°

■ Refer to General Product Notes, page 2.