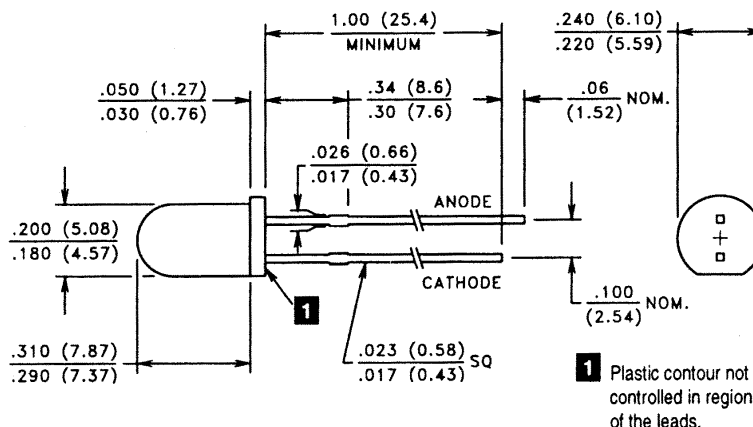




**PACKAGE DIMENSIONS** inch (mm)



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

**DESCRIPTION**

This narrow beam angle 5 mm plastic packaged emitter contains a double wirebonded, GaAlAs, 880 nm IRED chip. This cost effective design is well suited for dc or high current pulse applications. 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 $\mu$ A
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 $\mu$ 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 <sub>F</sub>		
	E <sub>e</sub>		Condition		I <sub>e</sub>	P <sub>O</sub>	I <sub>FT</sub>	@ I <sub>FT</sub>	$\theta_{1/2}$	
	mW/cm <sup>2</sup>		distance	Diameter	mW/sr	mW	mA (Pulsed)	Volts		Typ.
	Min.	Typ.	mm	mm	Min.	Typ.		Typ.	Max.	
VTE1291-1H	2.5	3.3	36	6.4	32	20	100	1.5	2.0	$\pm 12^\circ$
VTE1291-2H	5.0	6.5	36	6.4	65	25	100	1.5	2.0	$\pm 12^\circ$

Refer to General Product Notes, page 2.