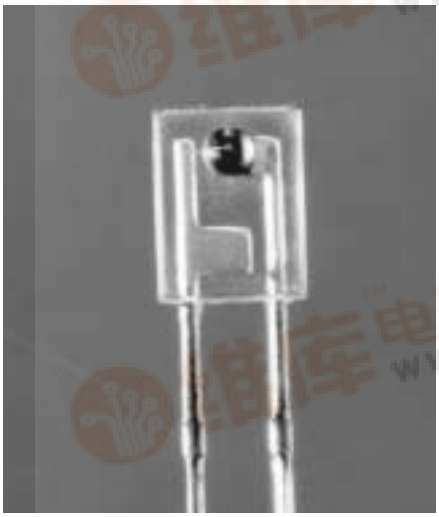
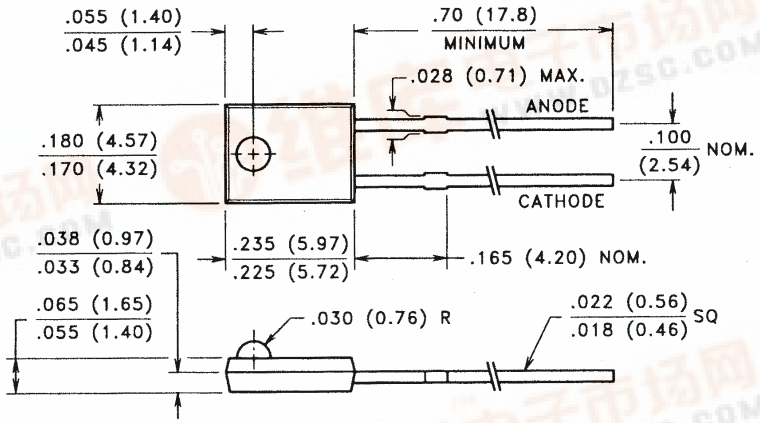
GaAlAs Infrared Emitting Diodes

Molded Lateral Package — 880 nm

VTE7172, 7173



PACKAGE DIMENSIONS inch (mm)



CASE 7 LATERAL
CHIP SIZE: .011" x .011"

DESCRIPTION

These side-looking packages are designed for use in PC board mounted interrupt detectors. The package is transfer molded plastic and contains a high efficiency, 880 nm, GaAlAs IRED die.

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

Maximum Temperatures	
Storage and Operating:	-40°C to 85°C
Continuous Power Dissipation:	100 mW
Derate above 30°C:	1.82 mW/°C
Maximum Continuous Current:	50 mA
Derate above 30°C:	0.91 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.):	14 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.	
VTE7172	0.4	0.6	16.7	4.6	1.1	2.5	20	1.3	1.8	±25°
VTE7173	0.6	0.8	16.7	4.6	1.7	5.0	20	1.3	1.8	±25°

■ Refer to General Product Notes, page 2.