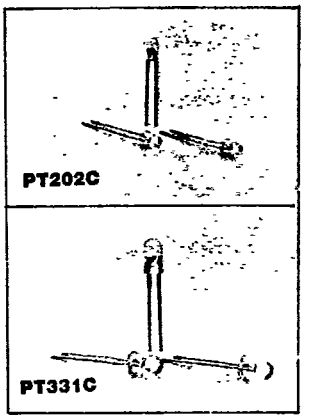
EVERLIGHT

PHOTOTRANSISTORS

T-41-61

PHOTOTRANSISTORS
MODEL: PT202C/PT331C



GENERAL DESCRIPTION

The PT202C and PT331C are Silicon Nitride Passivated NPN planar Phototransistors with exceptionally stable characteristics and high illumination sensitivity. The cases of PT202C and PT331C are encapsulated in clear plastic T-1 or T-1¾ package individually.

FEATURES

- High illumination sensitivity.
- Stable characteristics.
- Spectrally and mechanically matched with IR Emitter.

APPLICATIONS

- Remote control.
- Burglar alarm.
- Photo detector.
- Automatic control system.
- Smoke detector.
- Industrial use.
- Computer I/O peripheral.

ABSOLUTE MAXIMUM RATINGS (25°C unless otherwise noted)

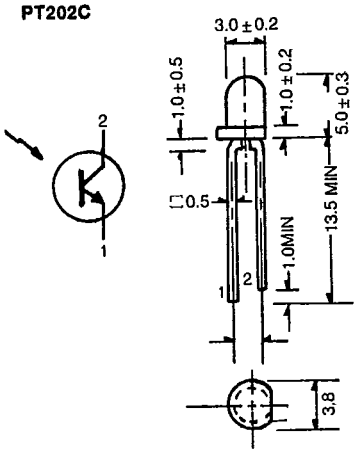
- Collector-to-Emitter Sustaining Voltage Vce (sus) 30V
- Emitter-to-Collector Breakdown Voltage 5V
- Collector Current Ic 25mA
- Operating Temperature Range ..... −40°C to +85°C
- Storage Temperature Range ..... −40°C to +85°C
- Lead Soldering Temperature (1/16 inch from case for 5 sec.) ..... 240°C
- Relative Humidity at 85°C 85%
- Power Dissipation at (or below) 25°C Free Air Temperature 100mW

ELECTRICAL AND RADIANT CHARACTERISTICS (Ta = 25°C)

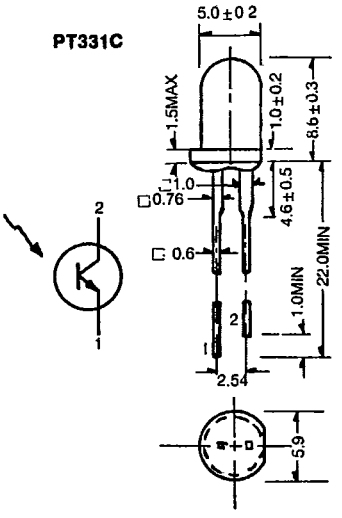
Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Condition
Vce (sus)	Collector-to-Emitter Sustaining Voltage	30	60		V	I_C = 100μA, H = 0
BVeco	Emitter-to-Collector Breakdown Voltage	5	7		V	I_C = 100μA, H = 0
V_{CE} (SAT)	Collector-to-Emitter Saturation Voltage		0.4		V	I_C = 0.5mA, H = 20mW/cm
I_D	Dark Current			100	nA	V_{CE} = 15V, H = 0
I_L	Photo Current, Tungsten Source at Color Temperature of 2854°K	10	20		mA	VCE = 5V, H = 20mW/cm
T_R	Rise Time (10% to 90%)		5		μs	V_{CC} = 30V, I_L = 800μA
T_F	Fall Time (90% to 10%)		5		μs	R_L = 1 kohm

PACKAGE DIMENSIONS

PT202C



PT331C



NOTE: 1. All dimensions are in millimeters. 2. Lead spacing is measured where the leads emerge from the package. 3. Protruded resin under flange 1.5 mm (0.059") Max.