

Features

- High infrared radiant intensity
- Compact surface-mount package
- Water clear Lens
- High reliability and stable optical performance
- Compatible with automated placement and reflow soldering processes

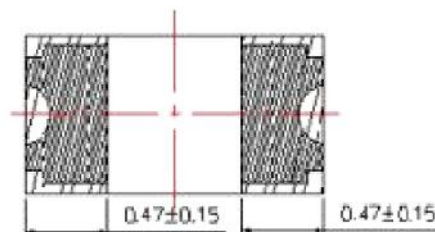
Applications

- Infrared sensing systems
- IR touch-panel
- Industrial IR equipment
- Consumer electronics
- High speed IR communications

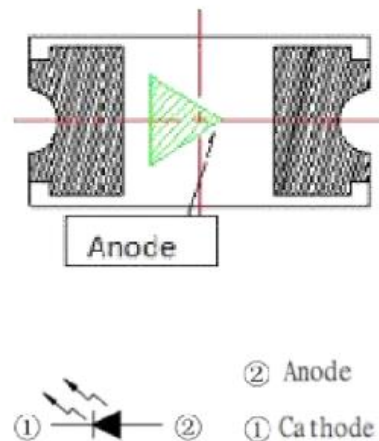
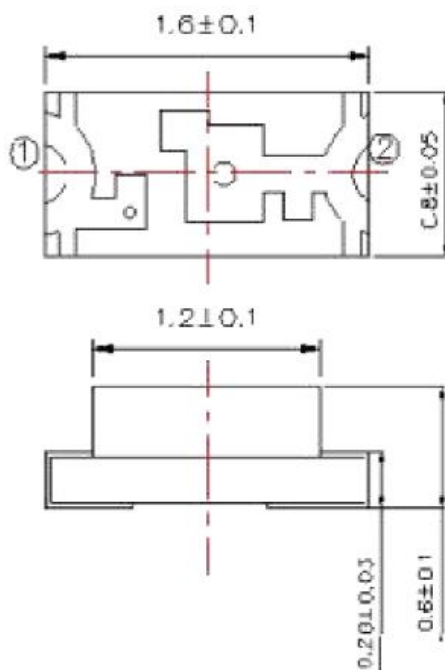
Description

The IN-S63BTIR is a popular 0603 top view package with versatile design capabilities. It is a PCB type molding style LED which can be used in various applications.

Recommended Solder Pattern



Package Dimensions in mm



Notes

1. All dimensions are in millimeters.
2. Tolerance is ± 0.1 mm unless otherwise noted

Absolute Maximum Rating $T_A=25^{\circ}\text{C}$

Parameter ($T_A=25^{\circ}\text{C}$)	Symbol	Ratings	Unit
Power Dissipation * ₁	P_d	130	mW
Reverse Voltage	V_R	5	V
Forward Current	I_F	65	mA
Peak Forward Current	I_{FP}	1	A
Operating Temperature	T_{opr}	-25~+85	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-40~+100	$^{\circ}\text{C}$
Lead Soldering Temperature * ₂	T_{sol}	260	$^{\circ}\text{C}$

Notes

1. Pulse width $\leq 100\mu\text{s}$, Duty cycle = 1%.
2. 2mm form body for 5 seconds.

ESD Precaution

ATTENTION: Electrostatic Discharge (ESD) protection



The symbol above denotes that ESD precaution is needed. ESD protection for GaP and AlGaAs based chips is necessary even though they are relatively safe in the presence of low static-electric discharge. Parts built with AlInGaP, GaN, or/and InGaN based chips are STATIC SENSITIVE devices. ESD precaution must be taken during design and assembly.

If manual work or processing is needed, please ensure the device is adequately protected from ESD during the process.

Please be advised that normal static precautions should be taken in the handling and assembly of this device to prevent damage or degradation which may be induced by electrostatic discharge (ESD).

Electro-Optical Characteristics $T_A=25^{\circ}\text{C}$

Paramete (Ta=25℃)	Symbol	Condition	Min.	Typ.	Max.	Units
Radiant Intensity	Ee	$I_F=20\text{mA}$	2.0	3.5	--	mW/sr
Peak Wavelength	λ_p	$I_F=20\text{mA}$	--	850	--	nm
Spectral Bandwidth	$\Delta\lambda$	$I_F=20\text{mA}$	--	45	--	nm
Forward Voltage	V_F	$I_F=20\text{mA}$	--	1.45	1.65	V
Reverse Current	I_R	$V_R=5\text{V}$	--	--	10	μA
View Angle	2 θ 1/2	$I_F=20\text{mA}$	--	120	--	deg

Bin Rank

Bin	Symbol	Condition	Min.	Max.	Unit
J	Ee	$I_F=20\text{mA}$	3.0	4.5	mW/sr

Notes:

Tolerance of Forward Voltage: $\pm 0.1\text{V}$ Tolerance of Luminous Intensity: $\pm 10\%$ Tolerance of Dominant Wavelength $\pm 1.0\text{nm}$



Revision History

Changes since last revision	Page	Version No.	Revision Date
Preliminary version		0.1	03-23-2026

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2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.