

# BOE100 TO18 Plastic IR Emitter

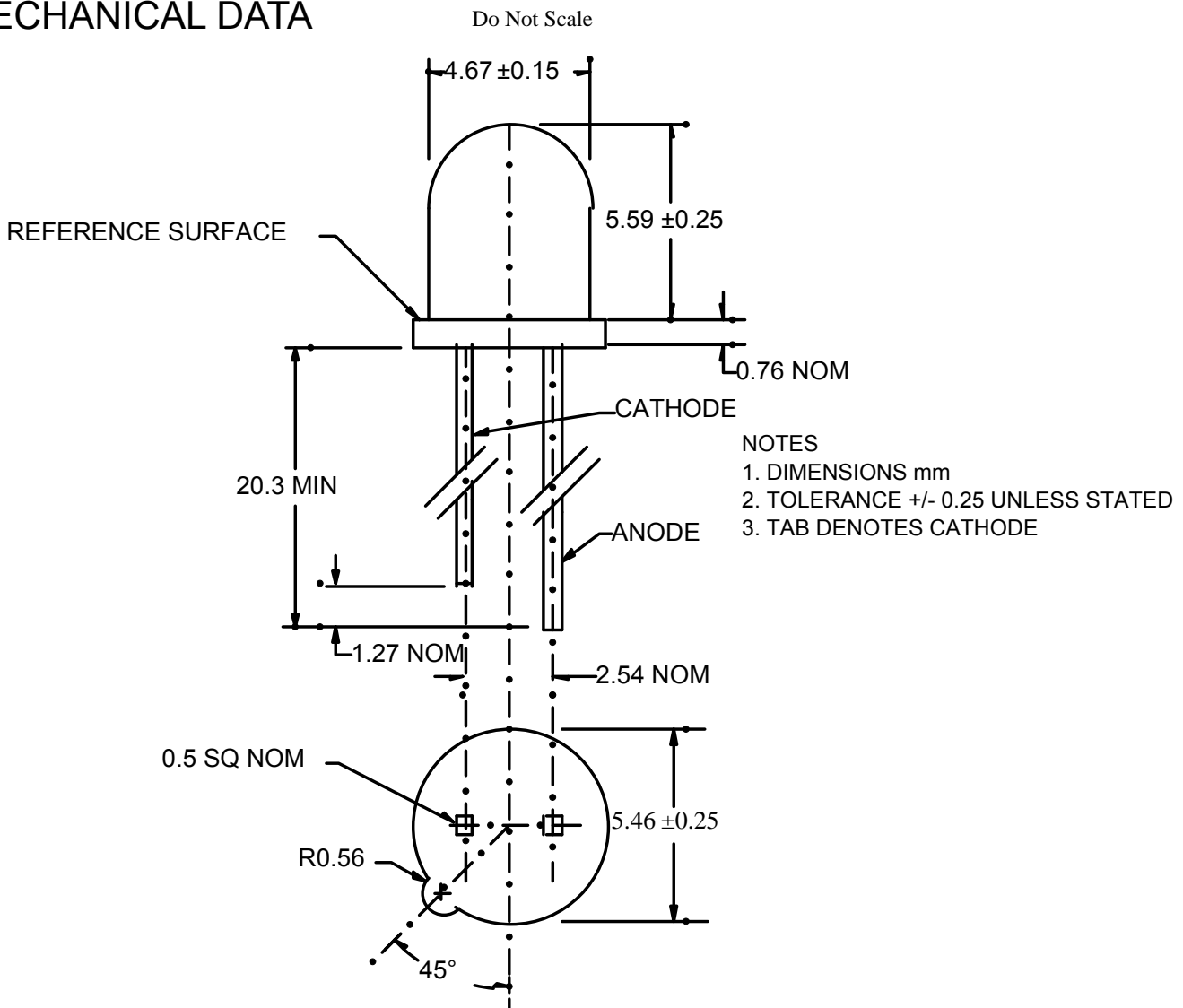
## FEATURES

- Min/max radiated power density selection.
- Good optical to mechanical alignment
- High radiance level.
- Coloured body gives easy recognition from Phototransistor.

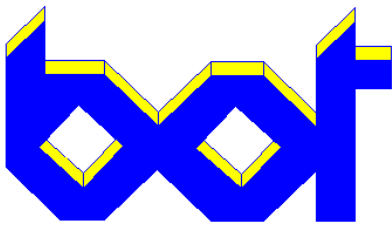
## DESCRIPTION

The BOE100 is a 880nm AlGaAs LED encapsulated in a clear, purple tinted plastic TO46 package

## MECHANICAL DATA



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# BOE100 TO18 Plastic IR Emitter

## ABSOLUTE MAXIMUM RATINGS (25°C unless otherwise noted)

STORAGE TEMP	-40 C TO +100°C
OPERATING TEMP	-40 C TO 100°C
CONTINUOUS FORWARD CURRENT	100mA
REVERSE VOLTAGE	5.0V
POWER DISSIPATION	200mW (1)
LEAD SOLDERING TEMPERATURE (Iron)	240°C for 5secs(2,3,5)
LEAD SOLDERING TEMPERATURE <sup>9</sup> (Flow)	260°C for 10secs

## OPTO ELECTRONIC DATA(Ta=25°C unless stated)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Forward Voltage	V <sub>f</sub>			1.70	V	I <sub>f</sub> = 20mA
Reverse leakage Current	I <sub>r</sub>			10	μA	V <sub>r</sub> =5.0V
Peak Emission Wavelength	λ <sub>p</sub>		880		nm	I <sub>f</sub> =20mA
Emission Angle at ½ Radiated Power Density.	Θ		±35		deg	
Radiant incidence	E <sub>o</sub>	16		26	mW/sqcm	I <sub>f</sub> =100mA(6,7)

### NOTES

1. Derate power dissipation linearly at 2.7mW/°C above 25°C.
2. RMA flux is recommended.
3. Methonal or Isopropylalcohols are recommended as cleaning agents.
4. Solder iron tip 1.6mm minimum from housing.
5. Leads not to be under stress or tension.
6. Measurement taken at the end of a 100μS pulse.
7. E<sub>o</sub> is a measure of the average apertured radiant energy incident upon a sensing area 6.35mm diameter perpendicular to and centred on the mechanical axis of the lens and 10.7mm from the measurement surface. E<sub>o</sub> is not necessarily uniform within the measurement area.

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