T-1 (3mm) INFRA-RED EMITTING DIODES

SUN LED

TNI30F WATER CLEAR LENS THI30F WATER CLEAR LENS

TNI30BF BLUE TRANS. LENS THI30BF BLUE TRANS. LENS

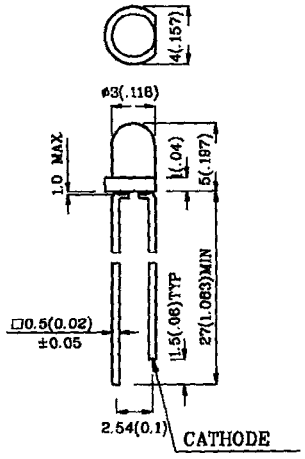
❖Features

MECHANICALLY AND SPECTRALLY MATCHED
TO THE TNI30W SERIES PHOTOTRANSISTOR.
BOTH WATER CLEAR LENS AND BLUE TRANSPARENT
LENS AVAILABLE HIGH POWER OUTPUT.

❖Description

Made with Gallium Aluminum Arsenide Infrared
Emitting diodes.

❖Dimensions



Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.

❖Selection Guide

Part No.	Case-Color	Iv (mW/sr) @20mA		Viewing Angle
		Min.	Typ.	2θ1/2
TNI30F	Water Clear	2.6	3.6	30°
TNI30BF	Blue Transparent	2.6	3.6	30°
THI30F	Water Clear	3.2	7.0	30°
THI30BF	Blue Transparent	3.2	7.0	30°

Note:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

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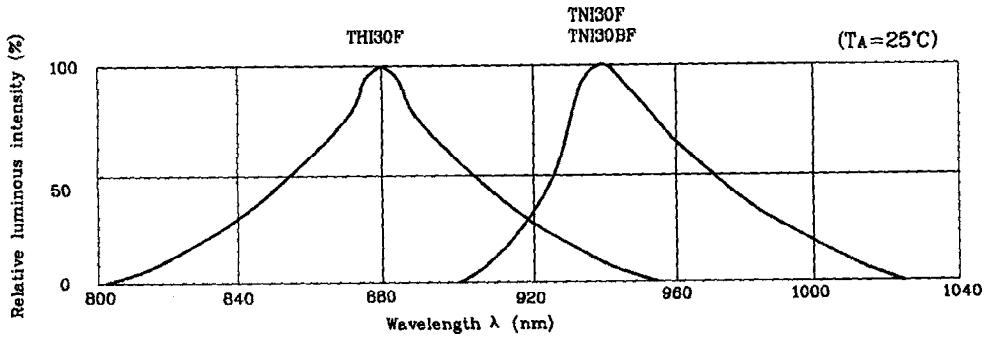
❖Absolute Maximum Ratings at T_A=25°C

Item	Symbol	Maximum Rating	Units
Power Dissipation	Pd	100	mW
Forward Current	IF	50	mA
Peak Forward Current	Ip	1.2	A
Reverse Voltage	VR	5	V
Operating Temperature	Topr	-45~ +80	°C
Storage Temperature	Tstg	-45~ +80	°C

Notes:
1.Ip Condiction : Pluse width ≤ 10us, Duty ≤ 1/100.

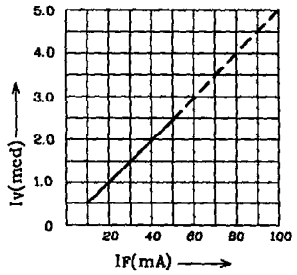
❖Electrical / Optical Characteristics at TA=25°C

Item	Symbol	P/N	Typ.	Max.	Unit	Condition
Forward Voltage	VF	TNI30F TNI30BF THI30F THI30BF	1.2 1.2 1.4 1.4	1.5 1.5 1.7 1.7	V	IF=20mA
Reverse Current	IR	TNI30F TNI30BF THI30F THI30BF	-	10 10 10 10	uA	VR=5V
Junction Capacitance	Co	TNI30F TNI30BF THI30F THI30BF	90 90 90 90	-	pF	V=0 f=1MHz
Peak Spectral Wavelength	IR	TNI30F TNI30BF THI30F THI30BF	940 940 880 880	-	nm	IF=20mA
Spectral Bandwidth	Δλ	TNI30F TNI30BF THI30F THI30BF	50 50 50 50	-	nm	IF=20mA

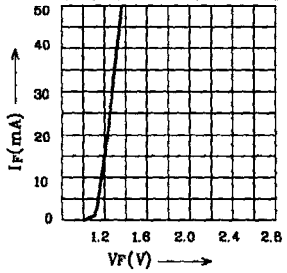


❖TNI30F / TNI30BF

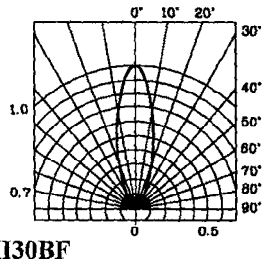
Luminous Intensity Vs. Forward Current



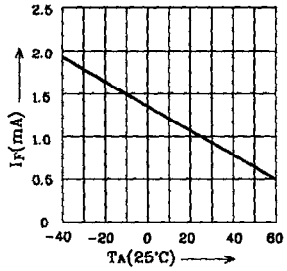
Forward current Vs. Forward volatge



Radiation Characteristics

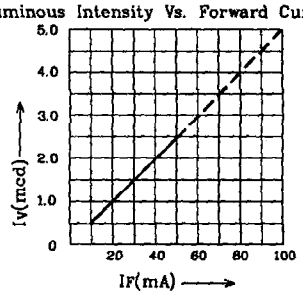


Forward current derating curve

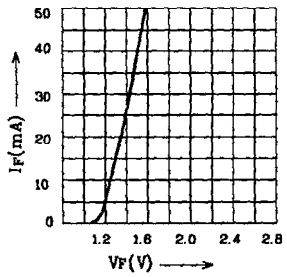


❖THI30F / THI30BF

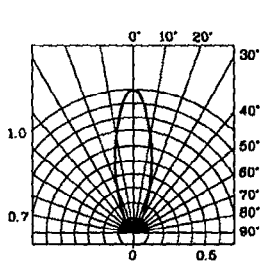
Luminous Intensity Vs. Forward Current



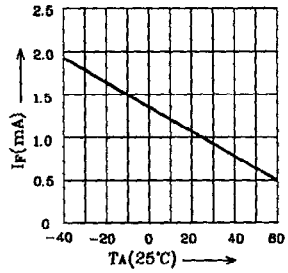
Forward current Vs. Forward volatge



Radiation Characteristics



Forward current derating curve



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