Features

- 0.3” (8.00mm) Digit Height
- Triple Digit Display
- Black/Grey Face, White Segment
- IC compatible, Easy assembly
- Dynamic drive connects
- RoHS Compliant, Pb Free

Description

The INND-TT30 series is a 0.3” triple digit display. It is a through hole type LED display which can be used in various applications.

Applications

- Consumer Electronics
- Industrial Equipment

Internal Circuit Diagram

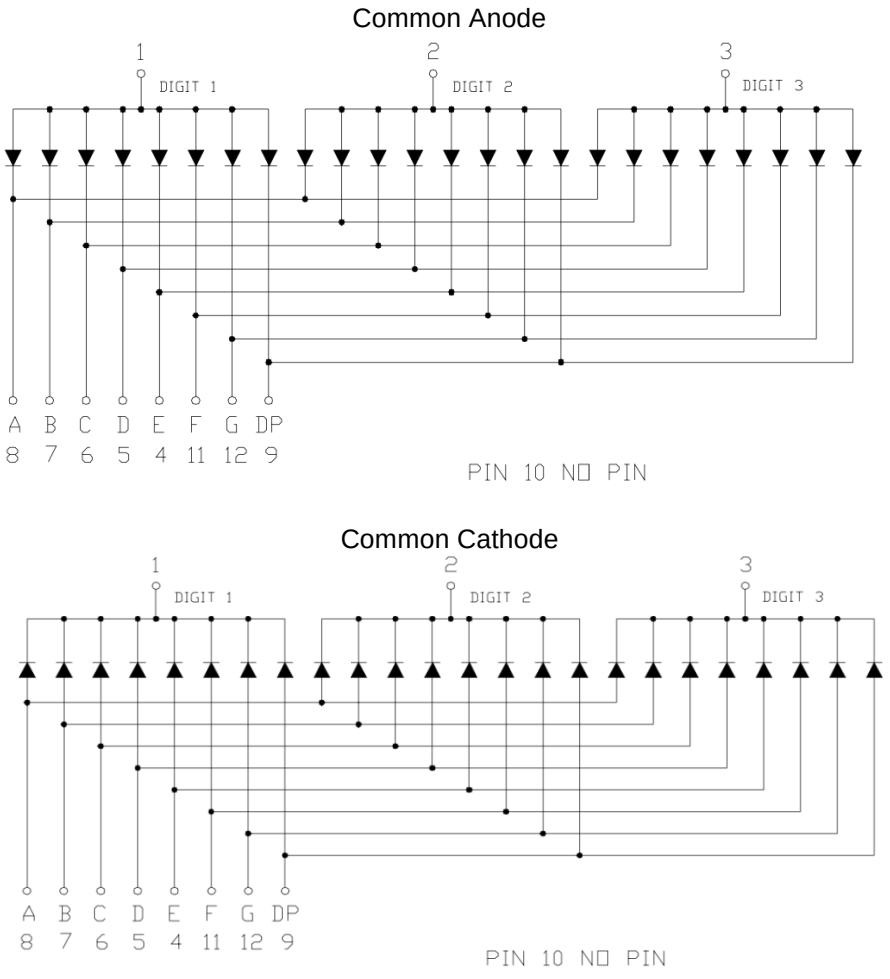


Figure 1. INND-TT30 series Internal Circuit Diagram

Package Dimensions

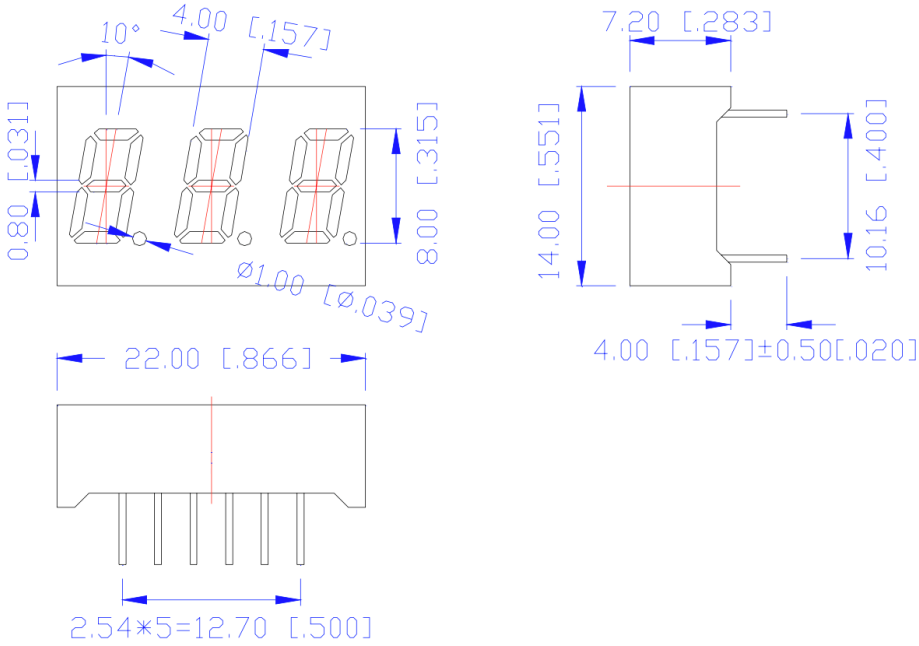


Figure 2. INND-TT30 series Package Dimensions

Notes

1. All pins are ⌀0.51[.020]±0.1[.004]
2. Dimension in millimeter [inch], tolerance is ±0.25 [.010] and angle is ±1° unless otherwise noted.
3. Bending≤Length*1%.

All Light On Segments Feature & Pin Position

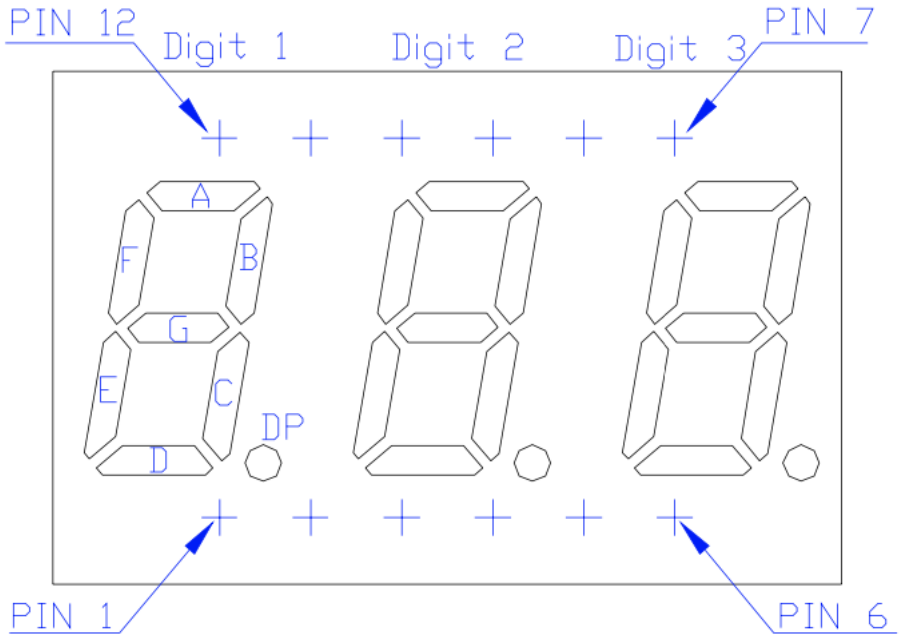


Figure 3. All Light On Segments Feature & Pin Position

Absolute Maximum Rating at 25°C (Note 1)

Product (Per Segment)	Emission Color	Technology	P_d (mW)	I_F (mA)	I_{FP}* (mA)	V_R (V)	Derate From 25°C (mA/°C)	T_{OP} (°C)	T_{ST} (°C)
INND-TT30YGXX	Yellow Green	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TT30YXX	Yellow	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TT30AXX	Amber	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TT30RXX	Red	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TT30DRXX	Deep Red	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TT30GXX	Green	InGaN	114	30	100	5	0.4	-35°C~+85°C	-35°C~+85°C

Notes
1. Condition for IFP is pulse of 1/10 duty and 0.1msec width

Electrical Characteristics T_A = 25℃ (Note 1)

Product (Per Segment)	Emission Color	VF(V)@20mA			λ(nm)@10mA		I*V(mcd)@10mA			IR(μA)@VR=5V	IV-M @IF =10mA
		min	typ.	max	λD	λP	min	typ.	max	max	max
INND-TT30YGXX	Yellow Green	-	2.0	2.8	570	572	-	12	-	100	2:1
INND-TT30YXX	Yellow	-	2.0	2.8	590	592	-	30	-	100	2:1
INND-TT30AXX	Amber	-	2.0	2.8	605	612	-	40	-	100	2:1
INND-TT30RXX	Red	-	2.0	2.8	630	644	-	18	-	100	2:1
INND-TT30DRXX	Deep Red		2.0	2.8	645	660	-	12	-	100	2:1
INND-TT30GXX	Green	-	3.2	3.8	525	-	-	120	-	100	2:1

Notes
1. Performance guaranteed only under conditions listed in above tables.

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).

Characteristic Curves for YG, Y, A, R, DR, G

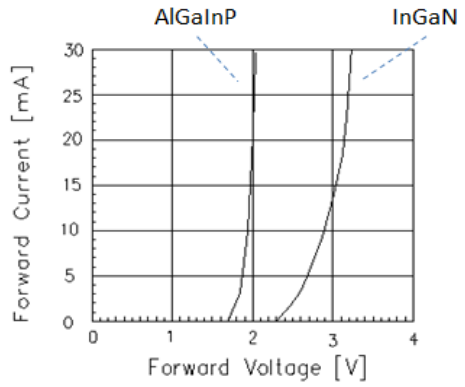


Fig 1. Forward Current vs. Forward Voltage

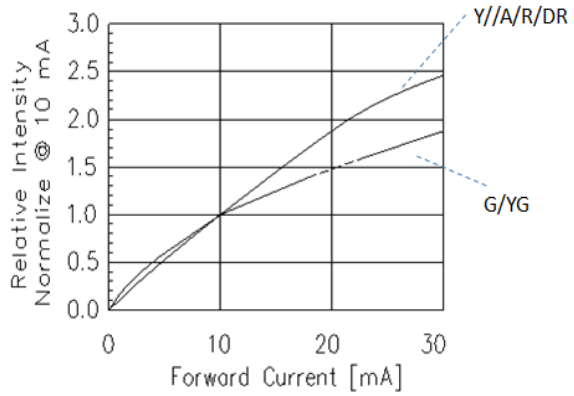


Fig 2. Relative Intensity vs. Forward Current

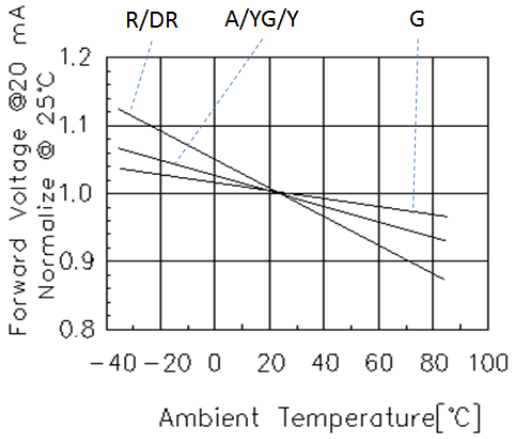


Fig 3. Forward Voltage vs. Temperature

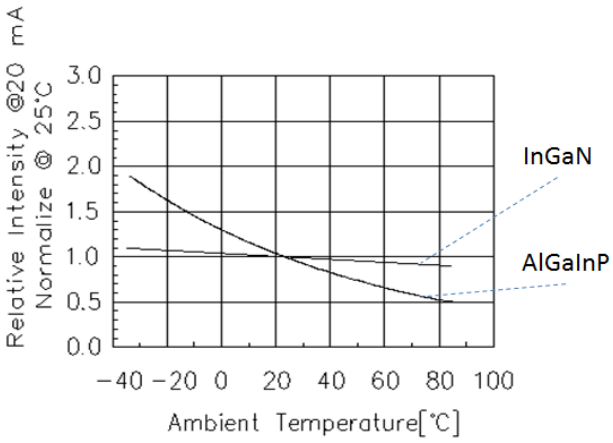


Fig 4. Relative Intensity vs. Temperature

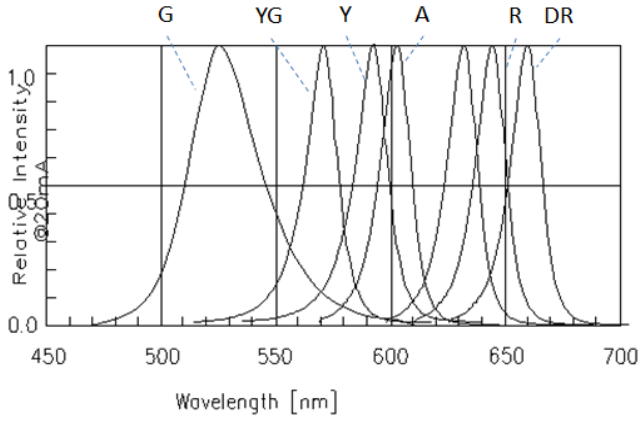


Fig 5. Relative Intensity vs. Wavelength

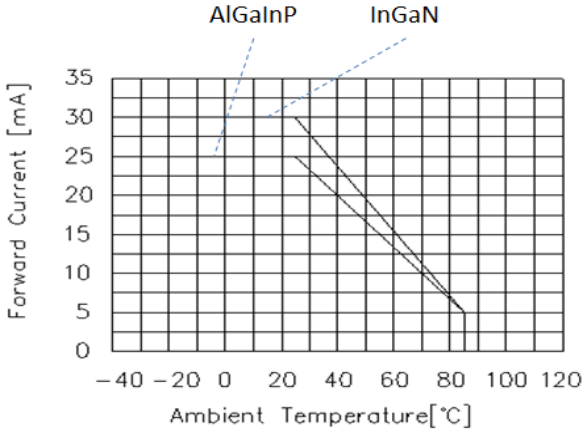


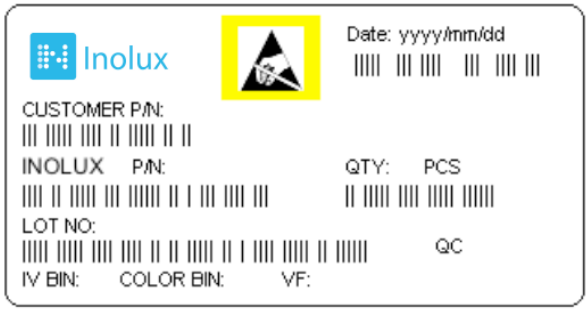
Fig 6. Forward current vs. Temperature

Ordering Information

Product	Emission Color	Technology	I*V(mcd) @10mA	VF(V) @20mA	Polarity	Face Color	Orderable Part Number
INND-TT30YGXX	Yellow Green	AlGaInP	12	2.0	Common Anode	Black	INND-TT30YGAB
					Common Cathode	Black	INND-TT30YGCB
					Common Anode	Grey	INND-TT30YGAG
					Common Cathode	Grey	INND-TT30YGCG
INND-TT30YXX	Yellow	AlGaInP	30	2.0	Common Anode	Black	INND-TT30YAB
					Common Cathode	Black	INND-TT30YCB
					Common Anode	Grey	INND-TT30YAG
					Common Cathode	Grey	INND-TT30YCG
INND-TT30AXX	Amber	AlGaInP	40	2.0	Common Anode	Black	INND-TT30AAB
					Common Cathode	Black	INND-TT30ACB
					Common Anode	Grey	INND-TT30AAG
					Common Cathode	Grey	INND-TT30ACG
INND-TT30RXX	Red	AlGaInP	18	2.0	Common Anode	Black	INND-TT30RAB
					Common Cathode	Black	INND-TT30RCB
					Common Anode	Grey	INND-TT30RAG
					Common Cathode	Grey	INND-TT30RCG

Product	Emission Color	Technology	I*V(mcd) @10mA	VF(V) @20mA	Polarity	Face Color	Orderable Part Number
INND-TT30DRXX	Deep Red	AlGaInP	12	2.0	Common Anode	Black	INND-TT30DRAB
					Common Cathode	Black	INND-TT30DRCB
					Common Anode	Grey	INND-TT30DRAG
					Common Cathode	Grey	INND-TT30DRCG
INND-TT30GXX	Green	InGaN	120	3.2	Common Anode	Black	INND-TT30GAB
					Common Cathode	Black	INND-TT30GCB
					Common Anode	Grey	INND-TT30GAG
					Common Cathode	Grey	INND-TT30GCG

Label Specifications



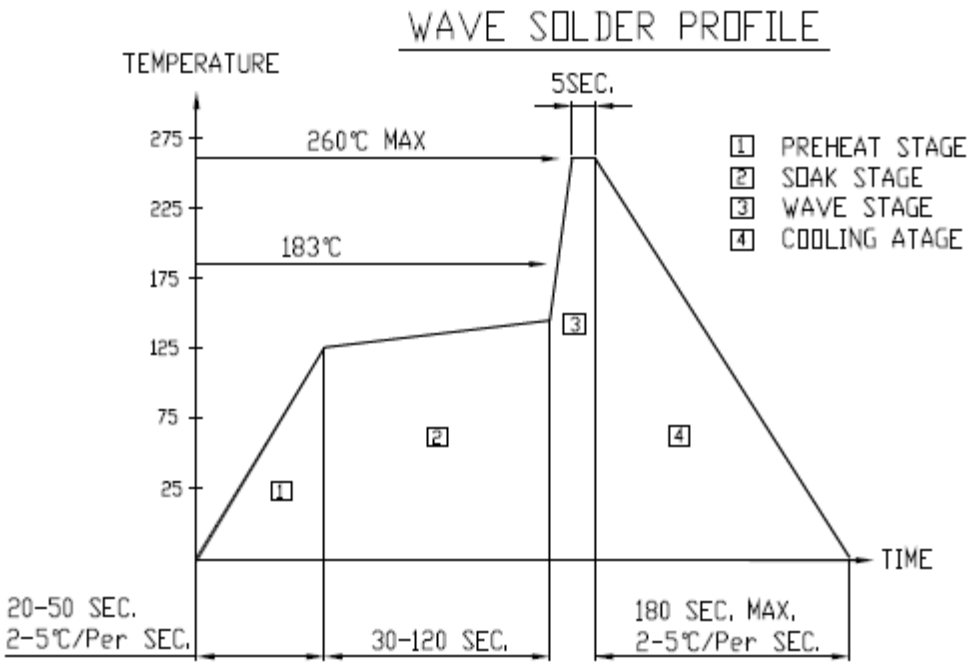
Inolux P/N:

I	N	N	D	-	T	T	3	0	X	X	X	-	X	X	X	X
		Display Type			Display Type		Dimension		Color	Polarity	Face Color		Customized Stamp-off			
Inolux		ND = Numeric Display			T: Through hole T: Triple		30 = 0.3” Display Height		YG: 570 nm Y: 590 nm A: 605 nm R: 624 nm DR:645 nm G: 520 nm	A = Common Anode C=Common Cathode	B = Black G = Grey					

Lot No.:

Z	2	0	1	7	01	24	001
Internal Tracker	Year (2017, 2018, …..)				Month	Date	Serial

Reflow Soldering



Soldering Iron

Basic Spec is ≦ 4 sec. when 260°C (+10°C ➔ -1 second). Power dissipation of Iron should be less than 15W. Surface temperature should be under 230°C

Rework

Rework should be completed within 4 second under 245°C

Revision History

Changes since last revision	Page	Version No.	Revision Date
Initial Release		1.0	12-27-2019

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