

Features

- 0.36" (9.2mm) Digit Height
- Triple Digit Display
- Black/Grey Face, White Segment
- IC compatible, Easy assembly
- Dynamic drive connects
- RoHS Compliant, Pb Free

Description

The INND-TT36 series is a 0.36" 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

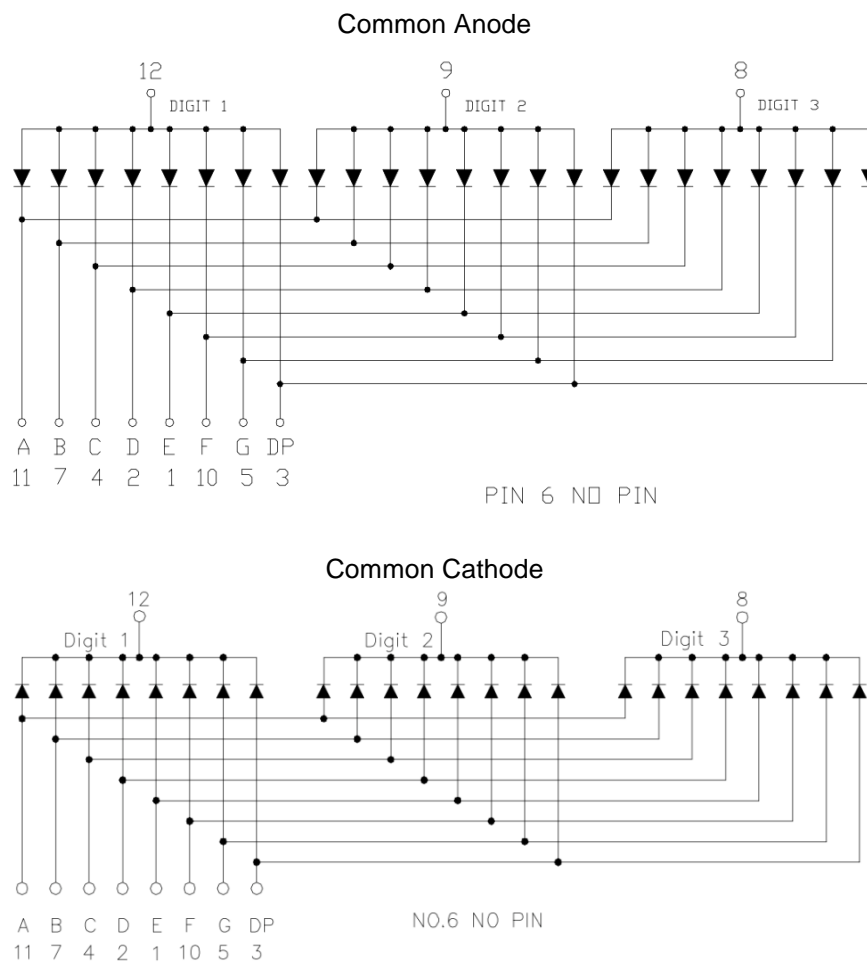


Figure 1. INND-TT36 series Internal Circuit Diagram

Package Dimensions

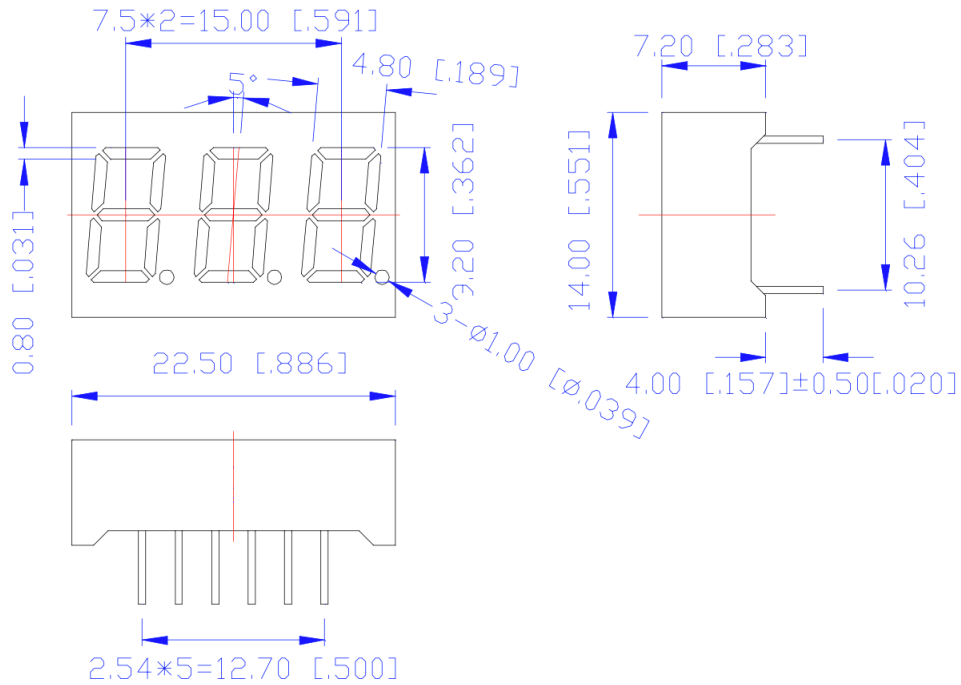


Figure 2. INND-TT36 series Package Dimensions

Notes

1. All pins are $\varnothing 0.51 [0.020] \pm 0.1 [0.004]$
2. Dimension in millimeter [inch], tolerance is $\pm 0.25 [0.010]$ and angle is $\pm 1^\circ$ unless otherwise noted.
3. Bending \leq Length * 1%.

All Light On Segments Feature & Pin Position

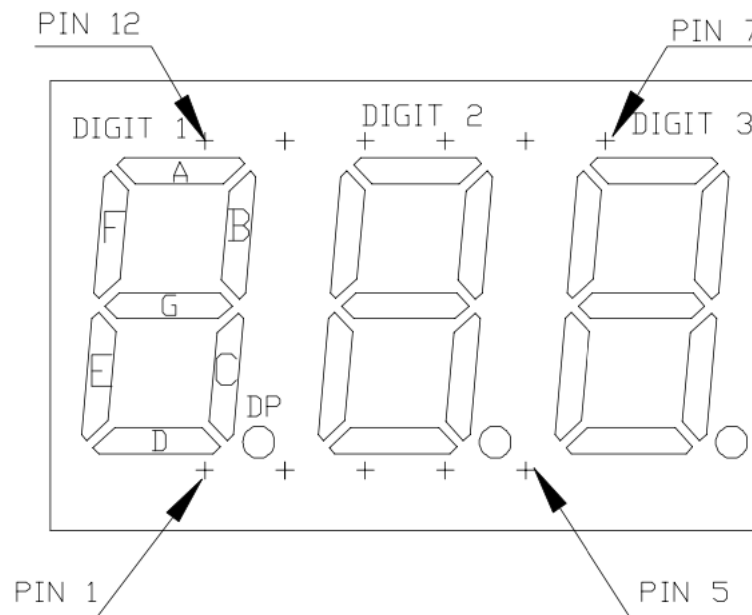


Figure 3. All Light On Segments Feature & Pin Position

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-TT36YGXX	Yellow Green	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TT36YXX	Yellow	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TT36AXX	Amber	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TT36RXX	Red	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TT36DRXX	Deep Red	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TT36GXX	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 $T_A = 25^\circ\text{C}$ (Note 1)

Product (Per Segment)	Emission Color	VF(V)@20mA			λ (nm)@10mA		I*V(mcd)@10mA			IR(μ A)@VR=5V	IV-M @IF =10mA
		min	typ.	max	λ D	λ P	min	typ.	max	max	max
INND-TT36YGXX	Yellow Green	-	2.0	2.8	570	572	-	8	-	100	2:1
INND-TT36YXX	Yellow	-	2.0	2.8	590	592	-	38	-	100	2:1
INND-TT36AXX	Amber	-	2.0	2.8	605	612	-	47	-	100	2:1
INND-TT36RXX	Red	-	2.0	2.8	630	644	-	16	-	100	2:1
INND-TT36DRXX	Deep Red		2.0	2.8	645	660	-	14	-	100	2:1
INND-TT36GXX	Green	-	3.2	3.8	525	-	-	150	-	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).

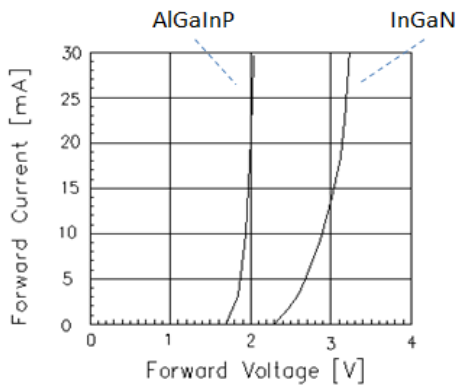
Characteristic Curves for YG, Y, A, R, DR, G


Fig 1. Forward Current vs. Forward Voltage

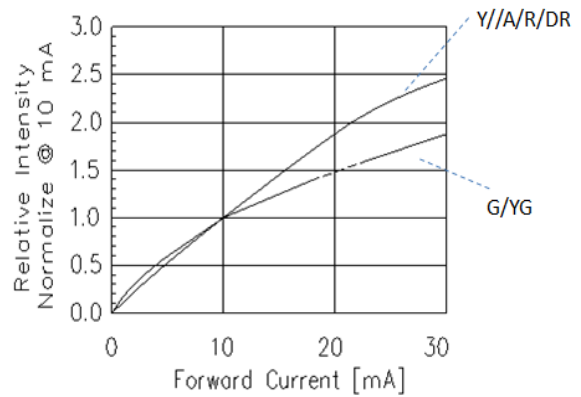


Fig 2. Relative Intensity vs. Forward Current

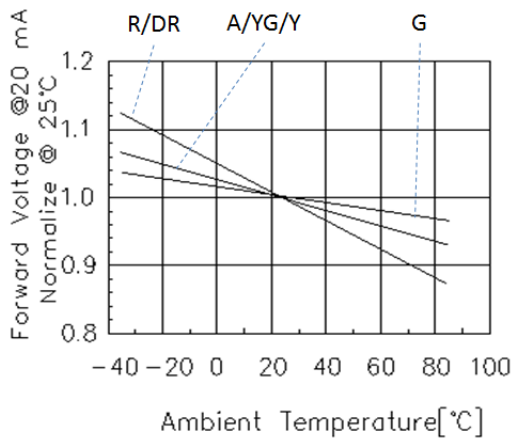


Fig 3. Forward Voltage vs. Temperature

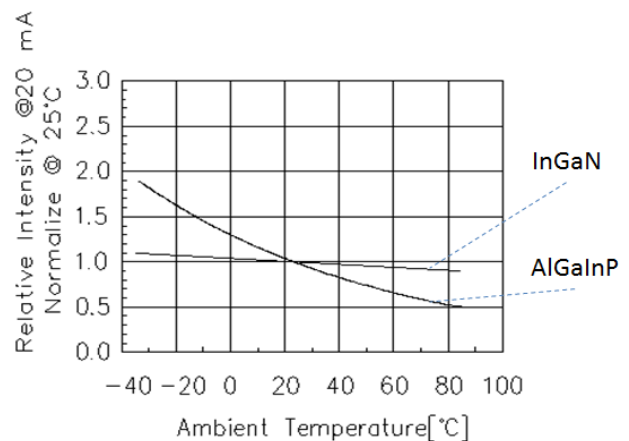


Fig 4. Relative Intensity vs. Temperature

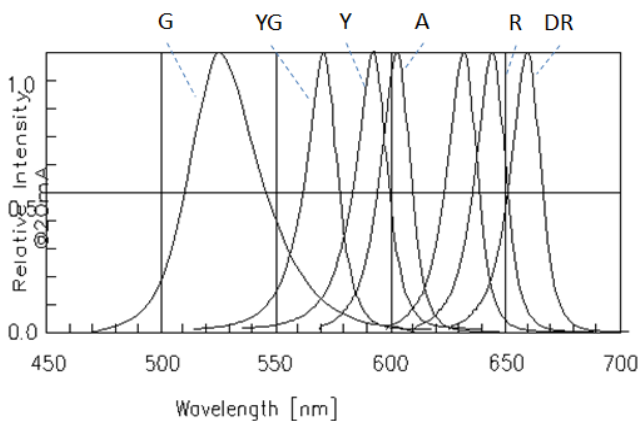


Fig 5. Relative Intensity vs. Wavelength

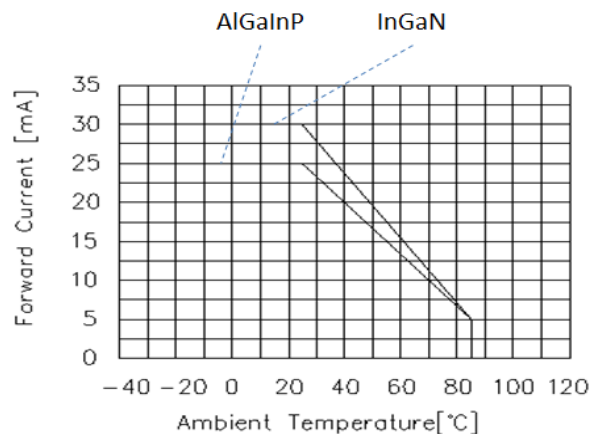


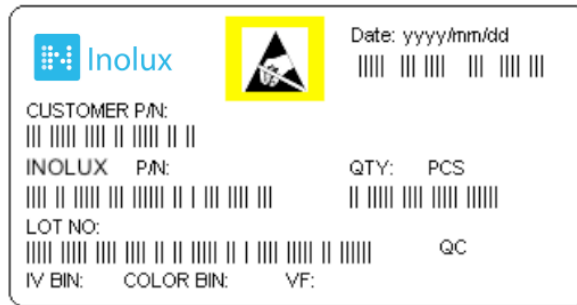
Fig 6. Forward current vs. Temperature

Ordering Information

Product	Emission Color	Technology	I*V(mcd) @10mA	VF(V) @20mA	Polarity	Face Color	Orderable Part Number
INND-TT36YGXX	Yellow Green	AlGaInP	8	2.0	Common Anode	Black	INND-TT36YGAB
					Common Cathode	Black	INND-TT36YGCB
					Common Anode	Grey	INND-TT36YGAG
					Common Cathode	Grey	INND-TT36YGCG
INND-TT36YXX	Yellow	AlGaInP	38	2.0	Common Anode	Black	INND-TT36YAB
					Common Cathode	Black	INND-TT36YCB
					Common Anode	Grey	INND-TT36YAG
					Common Cathode	Grey	INND-TT36YCG
INND-TT36AXX	Amber	AlGaInP	47	2.0	Common Anode	Black	INND-TT36AAB
					Common Cathode	Black	INND-TT36ACB
					Common Anode	Grey	INND-TT36AAG
					Common Cathode	Grey	INND-TT36ACG
INND-TT36RXX	Red	AlGaInP	16	2.0	Common Anode	Black	INND-TT36RAB
					Common Cathode	Black	INND-TT36RCB
					Common Anode	Grey	INND-TT36RAG
					Common Cathode	Grey	INND-TT36RCG

Product	Emission Color	Technology	I*V(mcd) @10mA	VF(V) @20mA	Polarity	Face Color	Orderable Part Number
INND-TT36DRXX	Deep Red	AlGaInP	14	2.0	Common Anode	Black	INND-TT36DRAB
					Common Cathode	Black	INND-TT36DRCB
					Common Anode	Grey	INND-TT36DRAG
					Common Cathode	Grey	INND-TT36DRCG
INND-TT36GXX	Green	InGaN	150	3.2	Common Anode	Black	INND-TT36GAB
					Common Cathode	Black	INND-TT36GCB
					Common Anode	Grey	INND-TT36GAG
					Common Cathode	Grey	INND-TT36GCG

Label Specifications



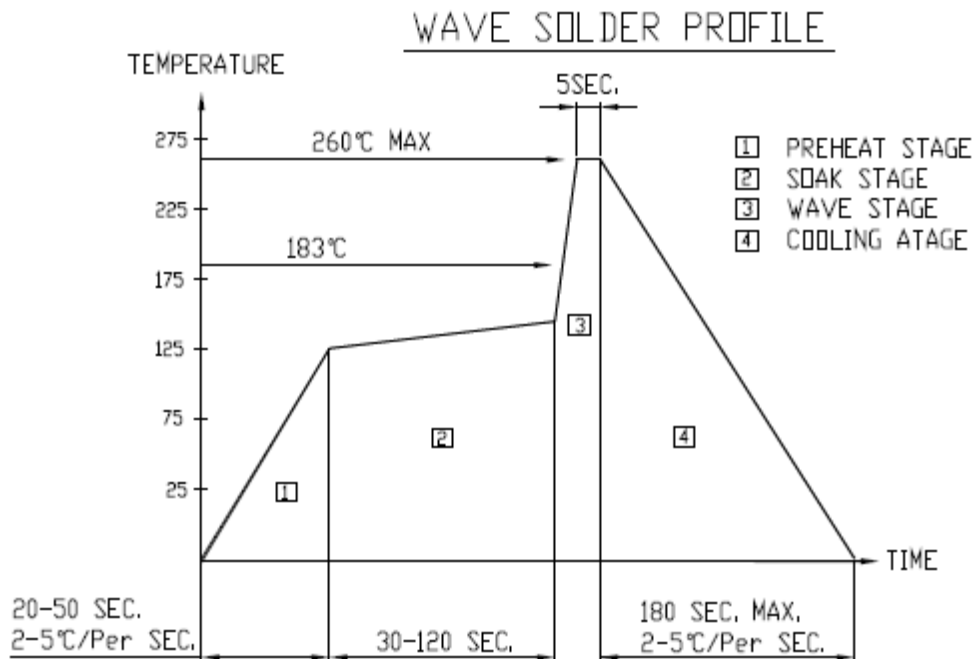
Inolux P/N:

I	N	N	D	-	T	T	3	6	X	X	X	-	X	X	X	X
Inolux		Display Type	Display Type	Dimension	Color	Polarity	Face Color	Customized Stamp-off								
Inolux		ND = Numeric Display	T: Through hole T: Triple	36 = 0.36" 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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