Features

- 0.39” (10.0mm) Digit Height
- Dual Digit Display
- Black/Grey Face, White Segment
- IC compatible, Easy assembly
- Dynamic drive connects
- RoHS Compliant, Pb Free

Description

The INND-TD39 series is a 0.39” dual 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

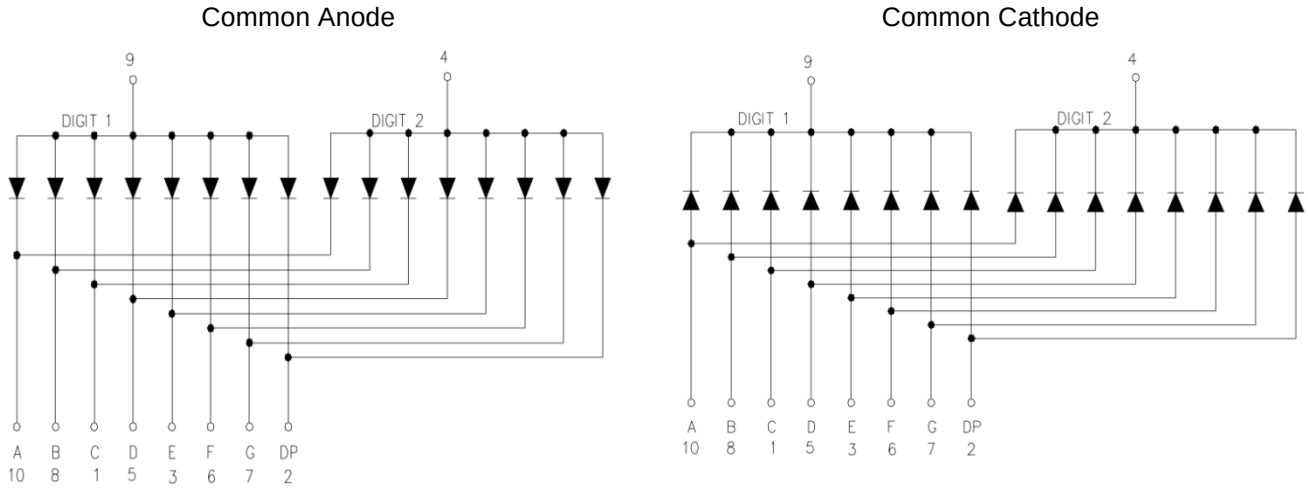


Figure 1. INND-TD39 series Internal Circuit Diagram

Package Dimensions

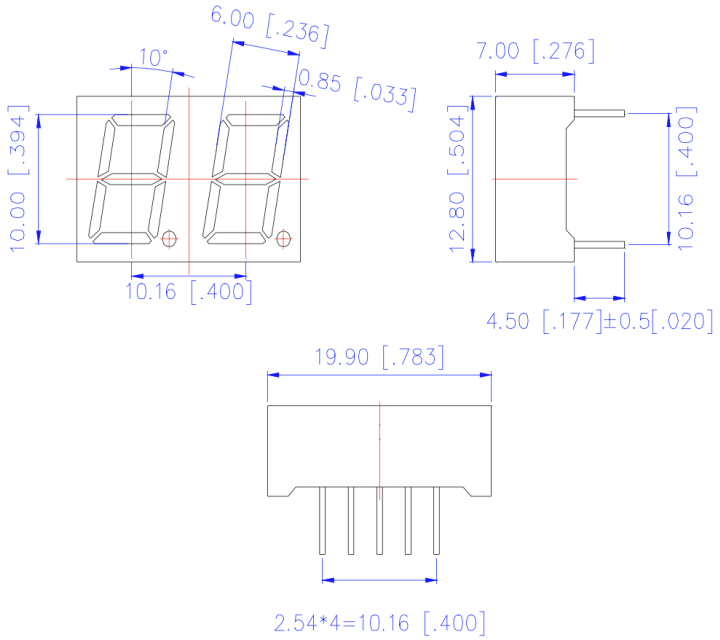


Figure 2. INND-TD39 series Package Dimensions

Notes

1. All pins are Φ0.51[.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

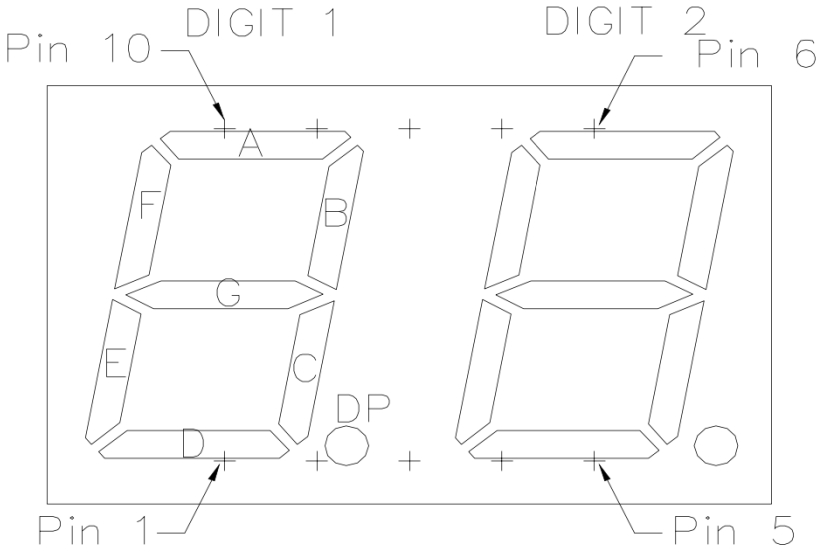


Figure 3. All Light On Segments Feature & Pin Position

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-TD39YGXX	Yellow Green	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TD39YXX	Yellow	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TD39AXX	Amber	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TD39RXX	Red	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TD39DRXX	Deep Red	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TD39GXX	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)@20mA		I*V(mcd)@10mA			IR(μA)@VR=5V	IV-M @IF =10mA
		min	typ.	max	λD	λP	min	typ.	max	max	max
INND-TD39YGXX	Yellow Green	-	2.0	2.8	570	572	-	12	-	100	2:1
INND-TD39YXX	Yellow	-	2.0	2.8	590	592	-	35	-	100	2:1
INND-TD39AXX	Amber	-	2.0	2.8	605	612	-	47	-	100	2:1
INND-TD39RXX	Red	-	2.0	2.8	630	644	-	15	-	100	2:1
INND-TD39DRXX	Deep Red	-	2.0	2.8	645	660	-	13	-	100	2:1
INND-TD39GXX	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

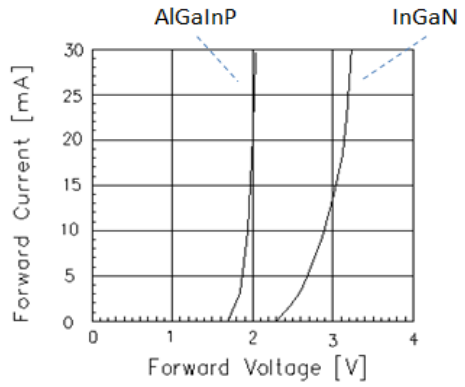


Fig 1. Forward Current vs. Forward Voltage

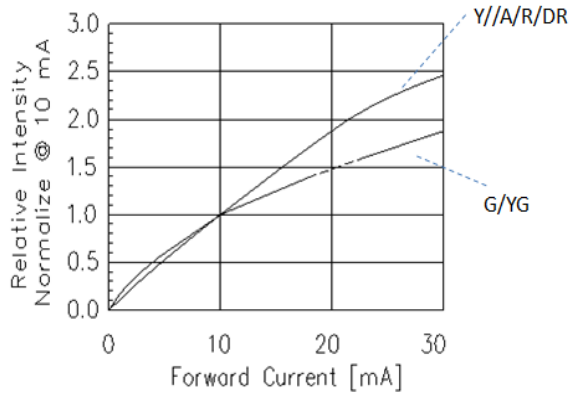


Fig 2. Relative Intensity vs. Forward Current

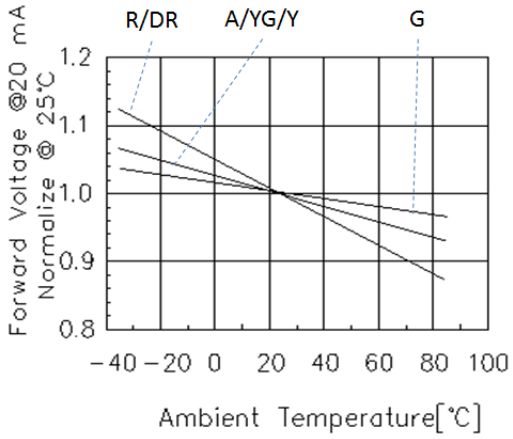


Fig 3. Forward Voltage vs. Temperature

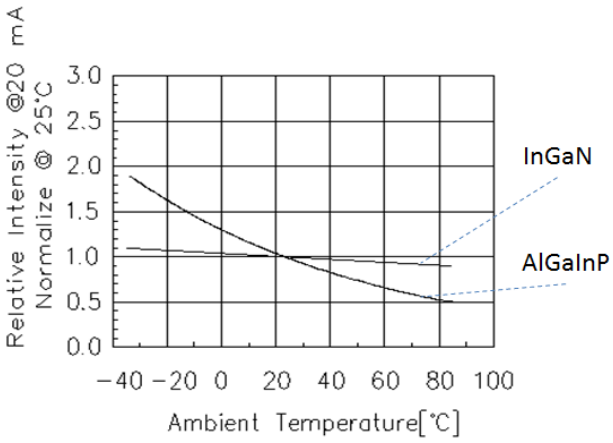


Fig 4. Relative Intensity vs. Temperature

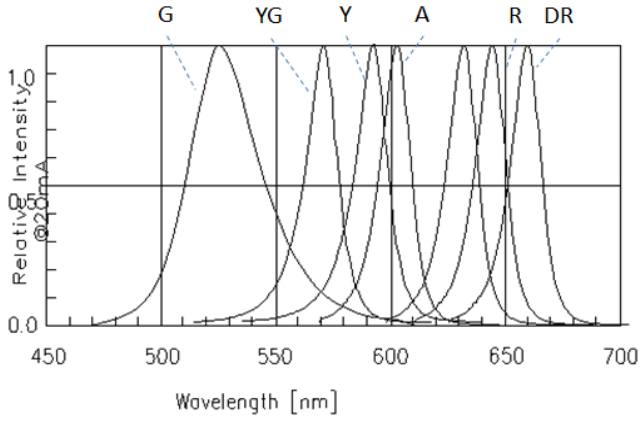


Fig 5. Relative Intensity vs. Wavelength

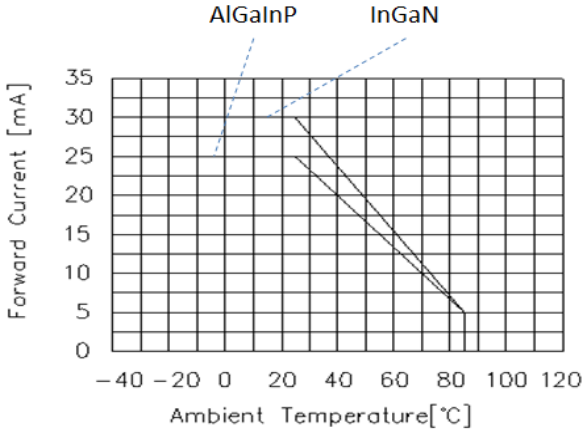


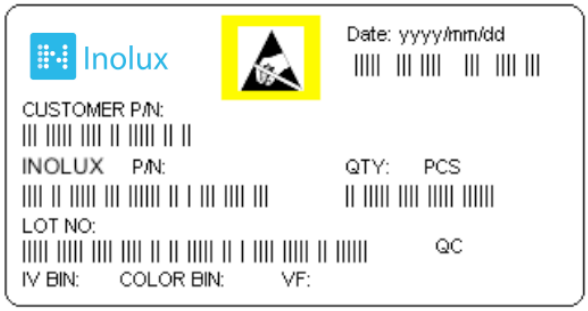
Fig 6. Forward current vs. Temperature

Ordering Information

Product	Emission Color	Technology	I*V(mcd) @10mA	VF(V) @20mA	Polarity	Face Color	Orderable Part Number
INND-TD39YGXX	Yellow Green	AlGaInP	12	2.0	Common Anode	Black	INND-TD39YGAB
					Common Cathode	Black	INND-TD39YGCB
					Common Anode	Grey	INND-TD39YGAG
					Common Cathode	Grey	INND-TD39YGCG
INND-TD39YXX	Yellow	AlGaInP	35	2.0	Common Anode	Black	INND-TD39YAB
					Common Cathode	Black	INND-TD39YCB
					Common Anode	Grey	INND-TD39YAG
					Common Cathode	Grey	INND-TD39YCG
INND-TD39AXX	Amber	AlGaInP	47	2.0	Common Anode	Black	INND-TD39AAB
					Common Cathode	Black	INND-TD39ACB
					Common Anode	Grey	INND-TD39AAG
					Common Cathode	Grey	INND-TD39ACG
INND-TD39RXX	Red	AlGaInP	15	2.0	Common Anode	Black	INND-TD39RAB
					Common Cathode	Black	INND-TD39RCB
					Common Anode	Grey	INND-TD39RAG
					Common Cathode	Grey	INND-TD39RCG

Product	Emission Color	Technology	I*V(mcd) @10mA	VF(V) @20mA	Polarity	Face Color	Orderable Part Number
INND-TD39DRXX	Deep Red	AlGaInP	13	2.0	Common Anode	Black	INND-TD39DRAB
					Common Cathode	Black	INND-TD39DRCB
					Common Anode	Grey	INND-TD39DRAG
					Common Cathode	Grey	INND-TD39DRCG
INND-TD39GXX	Green	InGaN	150	3.2	Common Anode	Black	INND-TD39GAB
					Common Cathode	Black	INND-TD39GCB
					Common Anode	Grey	INND-TD39GAG
					Common Cathode	Grey	INND-TD39GCG

Label Specifications



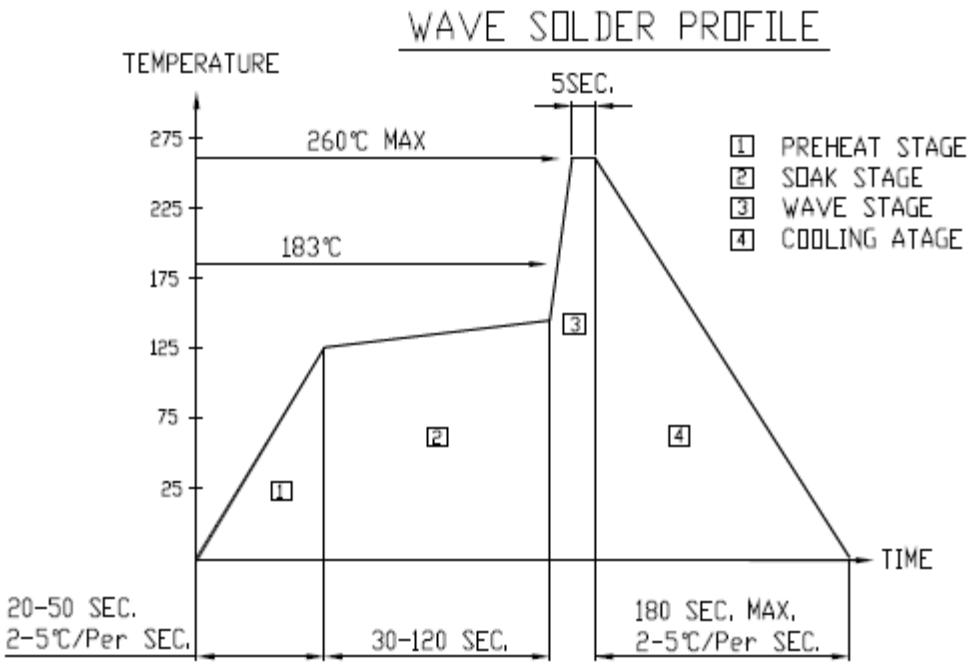
Inolux P/N:

I	N	N	D	-	T	D	3	9	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 D: Dual		39 = 0.39” Display Height		YG: 570 nm Y: 590 nm A: 605 nm R: 624 nm DR: 660 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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