Features

- 0.8” (20.32mm) Digit Height
- Dual Digit Display
- Black/Grey Face, White Segment
- IC compatible, Easy assembly
- Dynamic drive connects
- RoHS Compliant, Pb Free

Description

The INND-TD80 series is a 0.8” 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

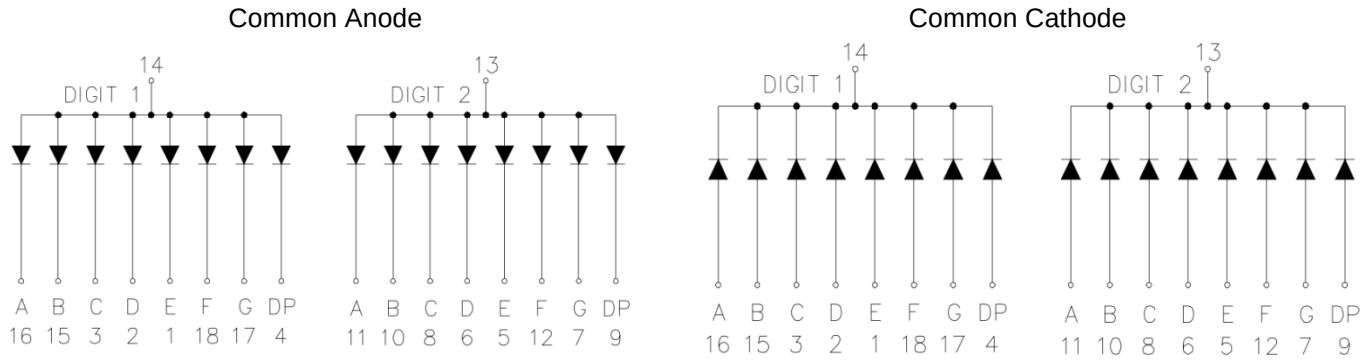


Figure 1. INND-TD80 series Internal Circuit Diagram

Package Dimensions

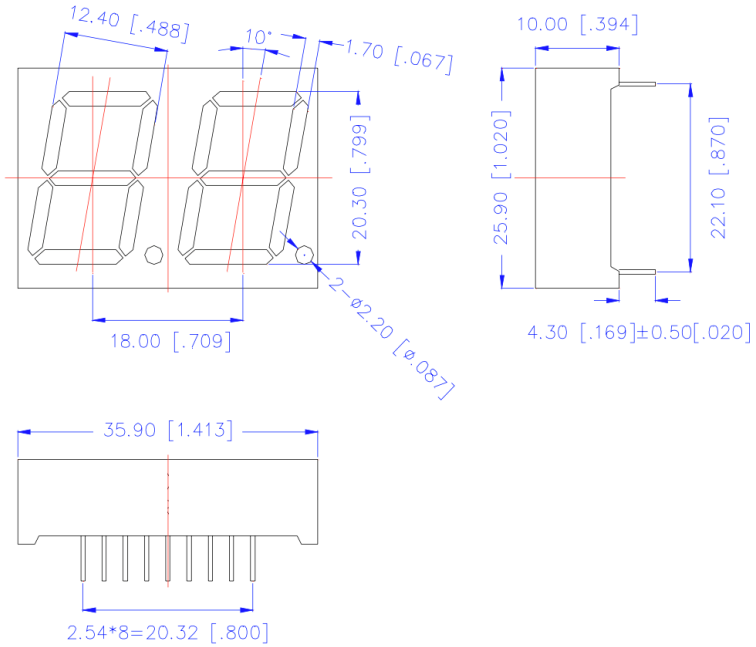


Figure 2. INND-TD80 series Package Dimensions

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

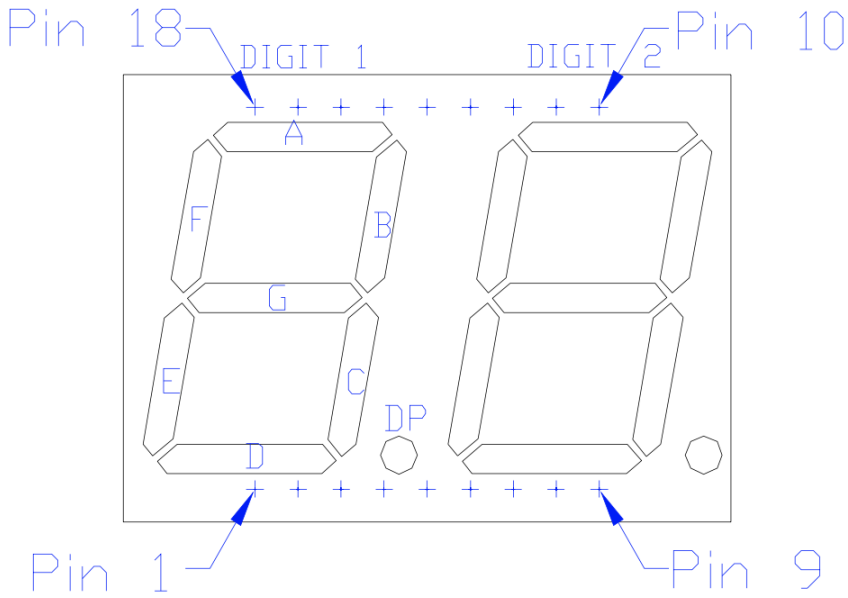


Figure 3. All Light On Segments Feature & Pin Position

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-TD80YGXX	Yellow Green	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TD80YXX	Yellow	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TD80AXX	Amber	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TD80RXX	Red	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TD80DRXX	Deep Red	AlGaInP	70	25	90	5	0.33	-35°C~+85°C	-35°C~+85°C
INND-TD80GXX	Green	InGaN	114	30	100	5	0.4	-35°C~+85°C	-35°C~+85°C
INND-TD80BXX	Blue	InGaN	114	30	100	5	0.4	-35°C~+85°C	-35°C~+85°C
INND-TD80WXX	White	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-TD80YGXX	Yellow Green	-	2.0	2.8	570	572	-	16	-	100	2:1
INND-TD80YXX	Yellow	-	2.0	2.8	590	592	-	55	-	100	2:1
INND-TD80AXX	Amber	-	2.0	2.8	605	612	-	75	-	100	2:1
INND-TD80RXX	Red	-	2.0	2.8	630	644	-	35	-	100	2:1
INND-TD80DRXX	Deep Red	-	2.0	2.8	645	660	-	27	-	100	2:1
INND-TD80GXX	Green	-	3.2	3.8	525	-	-	220	-	100	2:1
INND-TD80BXX	Blue	-	3.2	3.8	465	-	-	28	-	50	2:1
INND-TD80WXX	White	-	3.2	3.8	X: 0.27 Y: 0.25	-	-	150	-	50	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

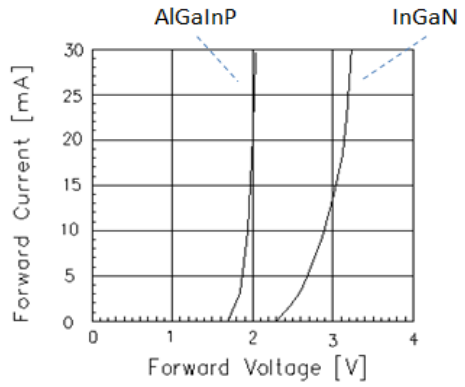


Fig 1. Forward Current vs. Forward Voltage

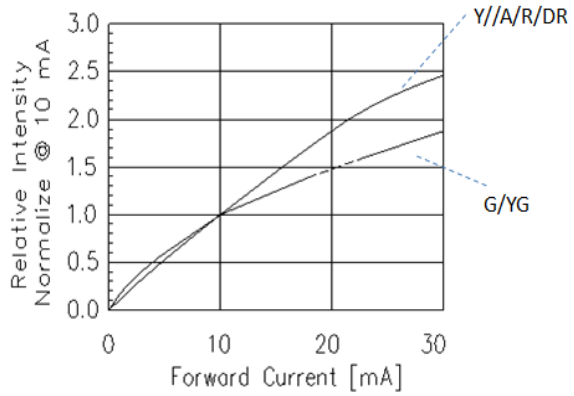


Fig 2. Relative Intensity vs. Forward Current

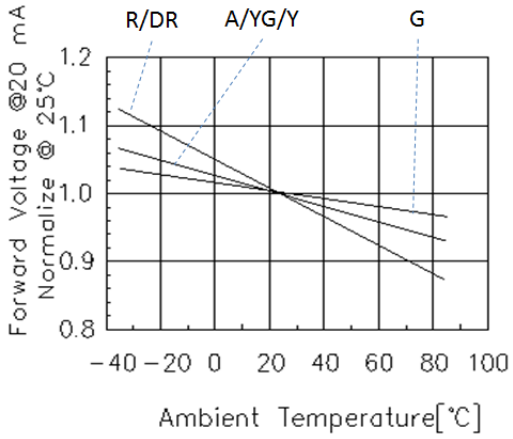


Fig 3. Forward Voltage vs. Temperature

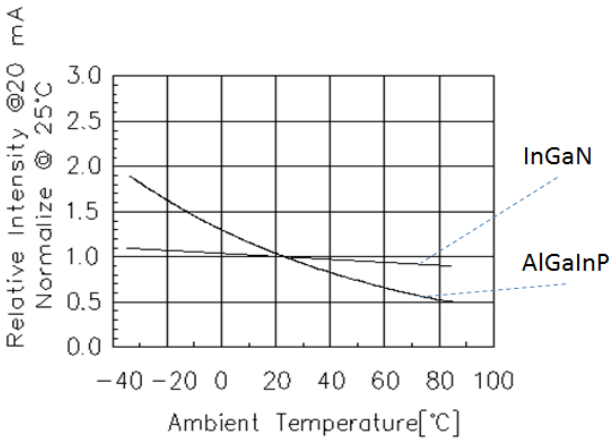


Fig 4. Relative Intensity vs. Temperature

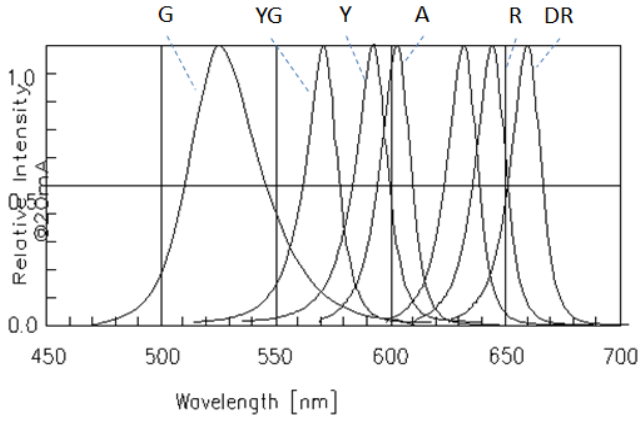


Fig 5. Relative Intensity vs. Wavelength

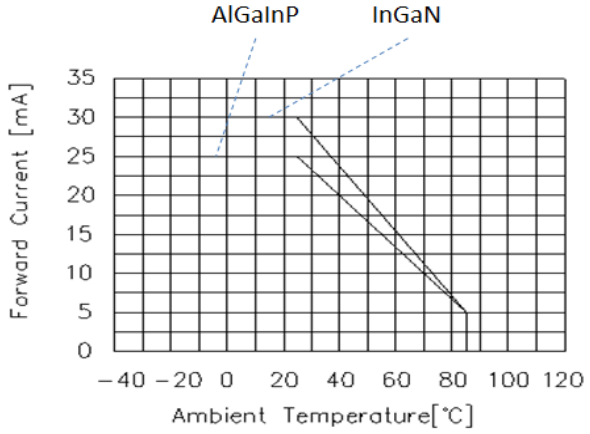


Fig 6. Forward current vs. Temperature

Characteristic Curves for B

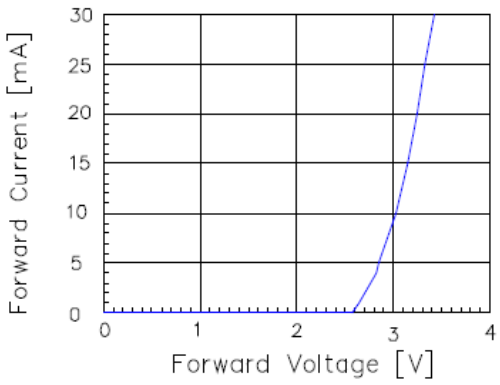


Fig 1. Forward Current vs. Forward Voltage

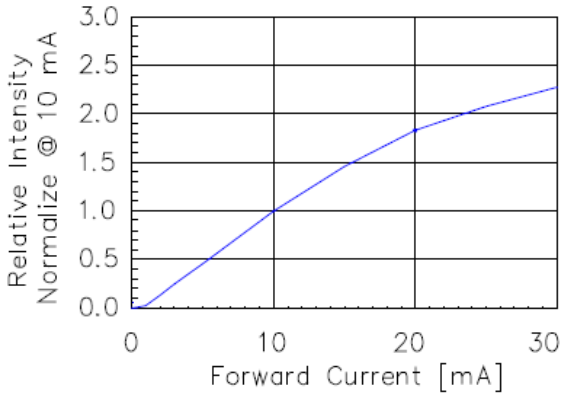


Fig 2. Relative Intensity vs. Forward Current

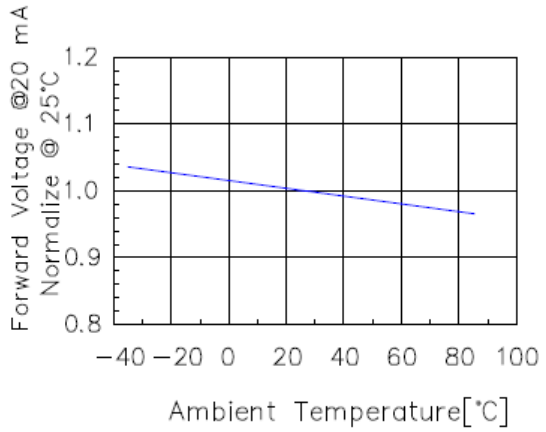


Fig 3. Forward Voltage vs. Temperature

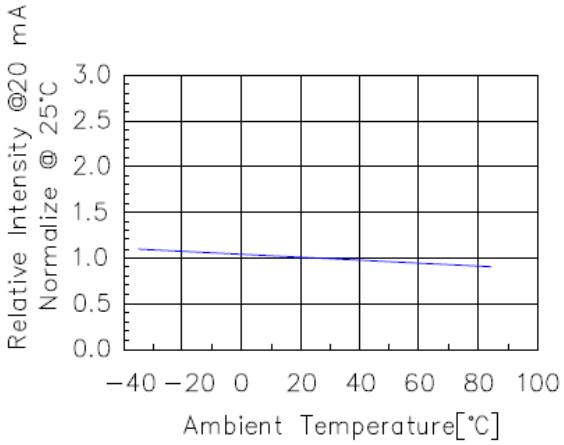


Fig 4. Relative Intensity vs. Temperature

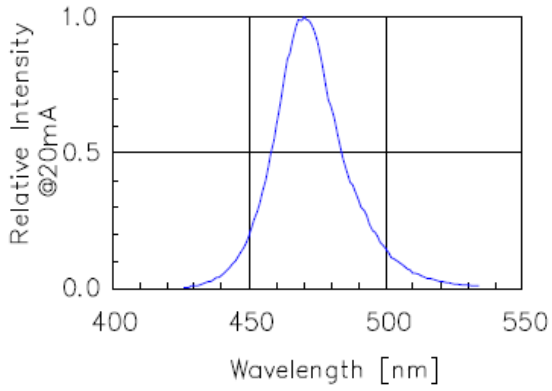


Fig 5. Relative Intensity vs. Wavelength

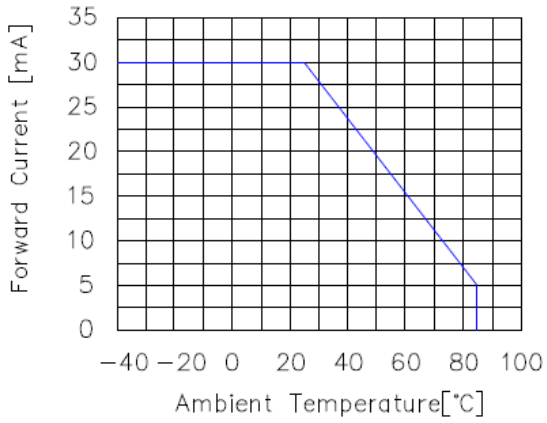


Fig 6. Forward current vs. Temperature

Characteristic Curves for W

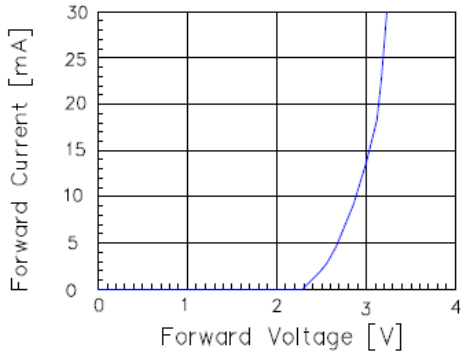


Fig 1. Forward Current vs. Forward Voltage

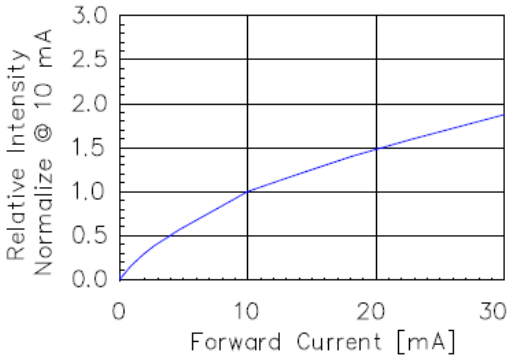


Fig 2. Relative Intensity vs. Forward Current

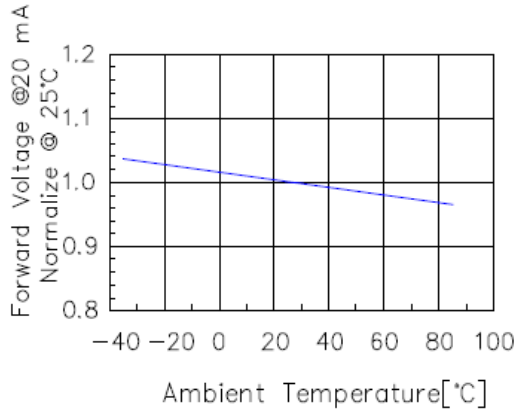


Fig 3. Forward Voltage vs. Temperature

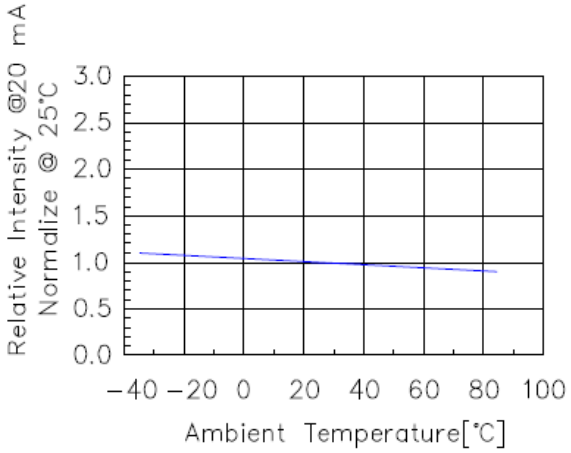


Fig 4. Relative Intensity vs. Temperature

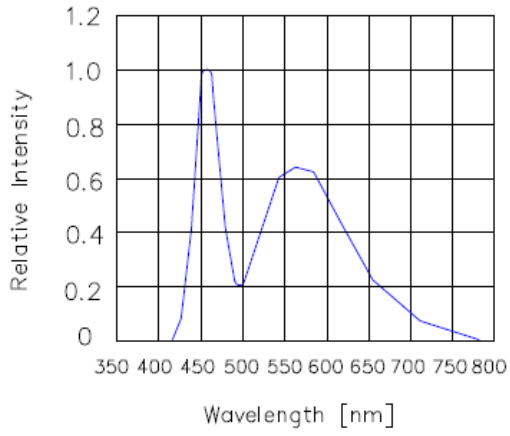


Fig 5. Relative Intensity vs. Wavelength

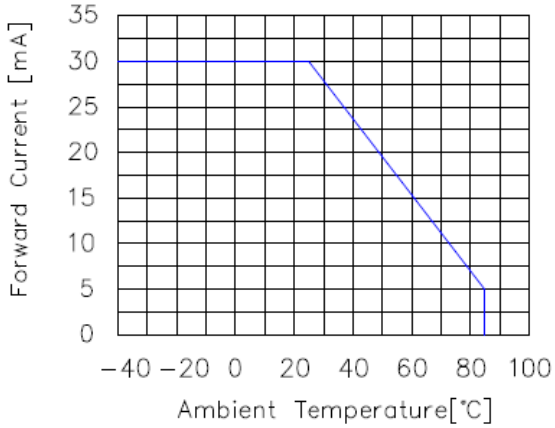
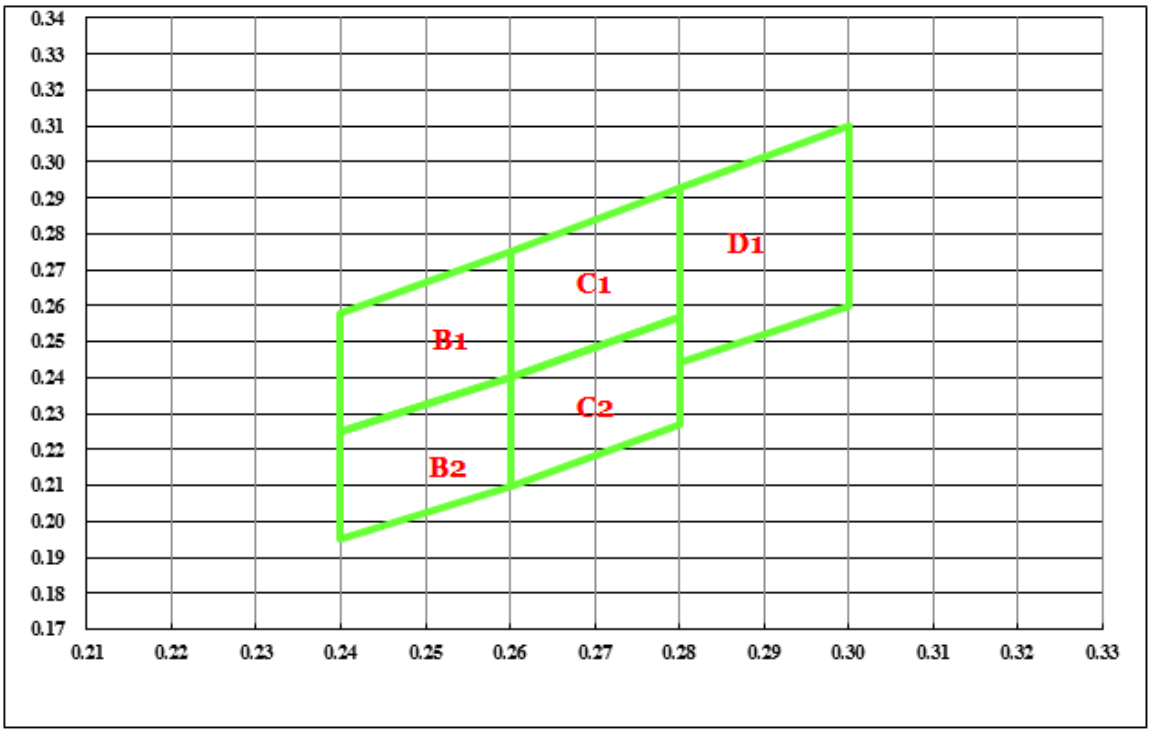


Fig 6. Forward current vs. Temperature

Chromaticity Bin (for White only)



B1				
X	0.240	0.240	0.260	0.260
Y	0.225	0.258	0.275	0.240

B2				
X	0.240	0.240	0.260	0.260
Y	0.195	0.225	0.240	0.210

C1				
X	0.260	0.260	0.280	0.280
Y	0.240	0.275	0.293	0.257

C2				
X	0.260	0.260	0.280	0.280
Y	0.210	0.240	0.257	0.227

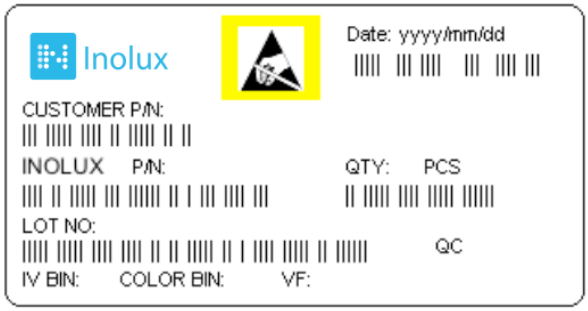
D1				
X	0.280	0.280	0.300	0.300
Y	0.244	0.293	0.310	0.260

Ordering Information

Product	Emission Color	Technology	I*V(mcd) @10mA	VF(V) @20mA	Polarity	Face Color	Orderable Part Number
INND-TD80YGXX	Yellow Green	AlGaInP	16	2.0	Common Anode	Black	INND-TD80YGAB
					Common Cathode	Black	INND-TD80YGCB
					Common Anode	Grey	INND-TD80YGAG
					Common Cathode	Grey	INND-TD80YGCG
INND-TD80YXX	Yellow	AlGaInP	55	2.0	Common Anode	Black	INND-TD80YAB
					Common Cathode	Black	INND-TD80YCB
					Common Anode	Grey	INND-TD80YAG
					Common Cathode	Grey	INND-TD80YCG
INND-TD80AXX	Amber	AlGaInP	75	2.0	Common Anode	Black	INND-TD80AAB
					Common Cathode	Black	INND-TD80ACB
					Common Anode	Grey	INND-TD80AAG
					Common Cathode	Grey	INND-TD80ACG
INND-TD80RXX	Red	AlGaInP	35	2.0	Common Anode	Black	INND-TD80RAB
					Common Cathode	Black	INND-TD80RCB
					Common Anode	Grey	INND-TD80RAG
					Common Cathode	Grey	INND-TD80RCG

Product	Emission Color	Technology	I*V(mcd) @10mA	VF(V) @20mA	Polarity	Face Color	Orderable Part Number
INND-TD80DRXX	Deep Red	AlGaInP	27	2.0	Common Anode	Black	INND-TD80DRAB
					Common Cathode	Black	INND-TD80DRCB
					Common Anode	Grey	INND-TD80DRAG
					Common Cathode	Grey	INND-TD80DRCG
INND-TD80GXX	Green	InGaN	220	3.2	Common Anode	Black	INND-TD80GAB
					Common Cathode	Black	INND-TD80GCB
					Common Anode	Grey	INND-TD80GAG
					Common Cathode	Grey	INND-TD80GCG
INND-TD80BXX	Blue	InGaN	28	3.2	Common Anode	Black	INND-TD80BAB
					Common Cathode	Black	INND-TD80BCB
					Common Anode	Grey	INND-TD80BAG
					Common Cathode	Grey	INND-TD80BCG
INND-TD80WXX	White	InGaN	150	3.2	Common Anode	Black	INND-TD80WAB
					Common Cathode	Black	INND-TD80WCB
					Common Anode	Grey	INND-TD80WAG
					Common Cathode	Grey	INND-TD80WCG

Label Specifications



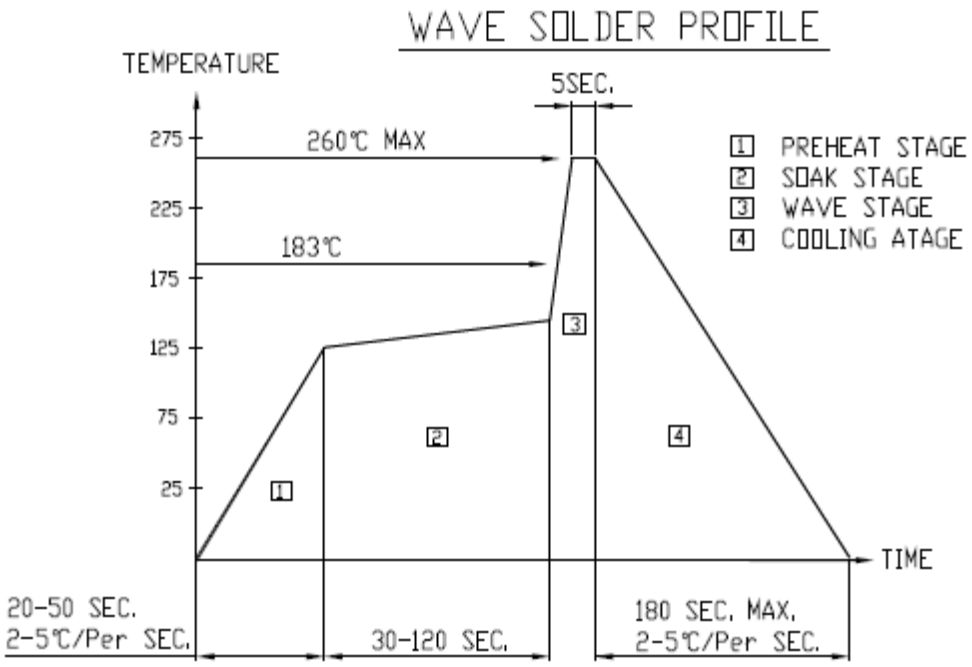
Inolux P/N:

I	N	N	D	-	T	D	8	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 D: Dual		80 = 0.8” Display Height		YG: 570 nm Y: 590 nm A: 605 nm R: 624 nm DR: 660 nm G: 520 nm B: 470 nm W: X: 0.27 Y: 0.25	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

DISCLAIMER

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