

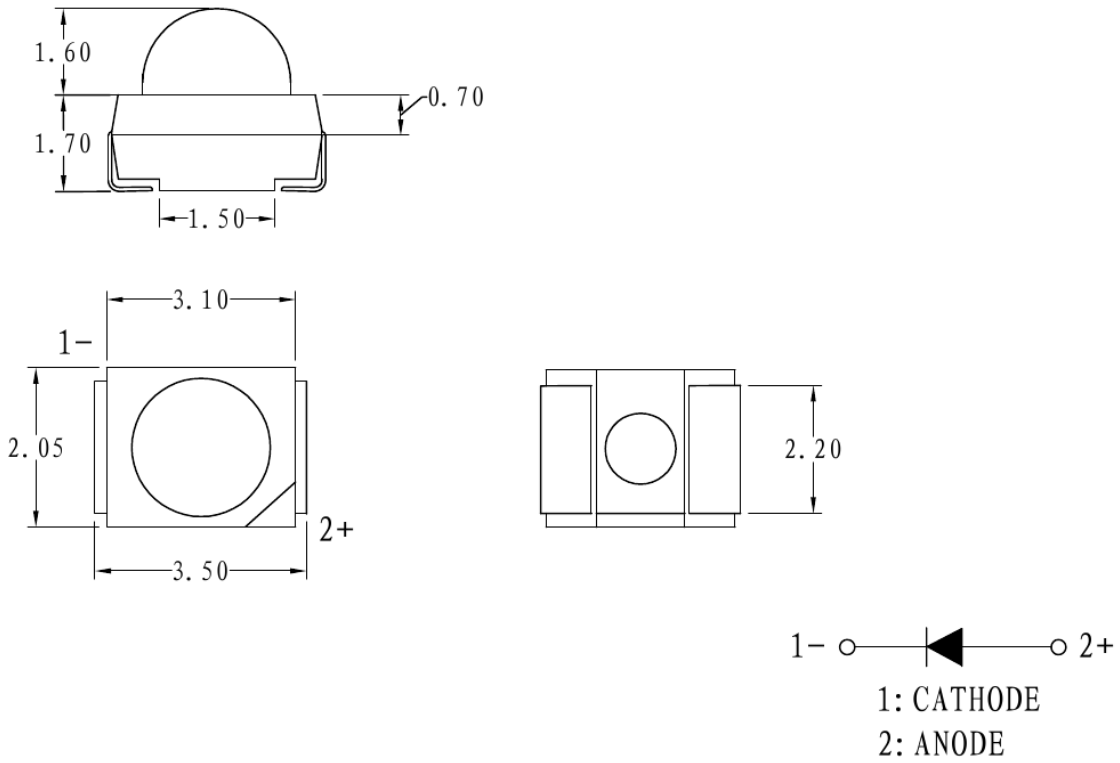


## APPROVAL SHEET

P/N: IE-3528WN-L-C  
REV: A/0  
EFFECTIVE TIME: 2015-5-5

Part Number: IE-3528WN-L-C

■ Package Dimensions And Materials



Chip		Lens Color
Material	Emitting Color	
InGaN	White	Water Clear

(Units)	(Unless otherwise noted)	(Encapsulation tolerance)
mm	± 0.1	± 0.25



■ Absolute Maximum Rating at TA=25° C

Item	Symbol	Absolute Maximum Rating	Unit
Forward Current	If	20	mA
Peak Forward Current	Ifp	100	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD	70	mW
Electrostatic discharge	ESD	2000	V
Operation Temperature	Topr	-30 -- +80	° C
Storage Temperature	Tstg	-40 -- +80	° C
Lead Soldering Temperature	Tsol	Max. 240° C for 5sec Max	

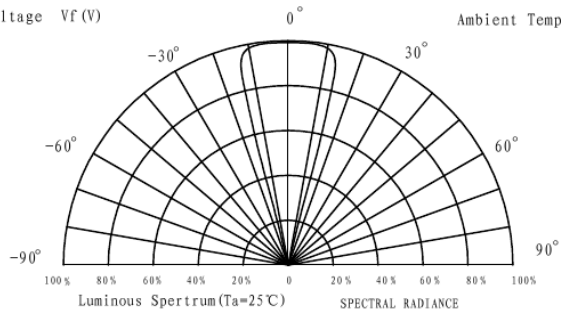
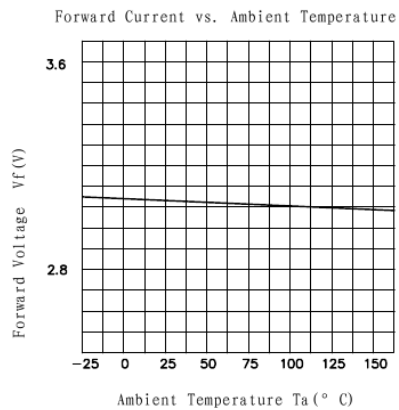
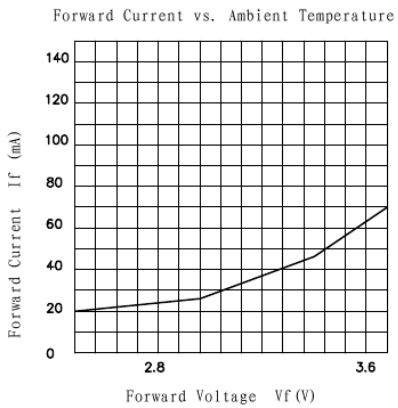
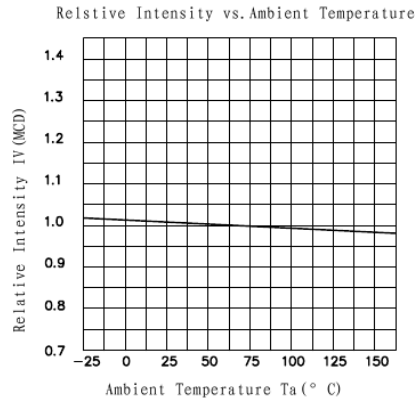
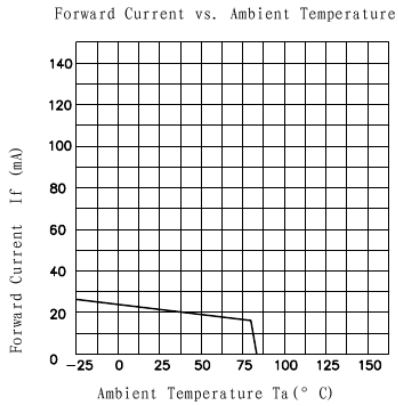
IFP Conditions: Pulse Width ≤ 10ms duty ≤ 1/10

Tsol Conditions: 3mm from the base of the epoxy bulb

■ Typical Optical/Electrode Characteristic

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	Vf	IF=20mA	2.8	--	3.6	V
Reverse Current	Ir	Vr=5V	--	--	10	uA
50 % Power Angle	2 θ 1/2	IF=20mA		30		deg
Luminous Flux	Flux	IF=20mA	7	--	8	LM
Color Temperature	TC	IF=20mA		4500		K

◆  
 ■ Typical Optical//Electrode Characteristic Curves  
 (Ta=25°C Unless Otherwise Noted)



◆  
Soldering Condition (Pb-Free)

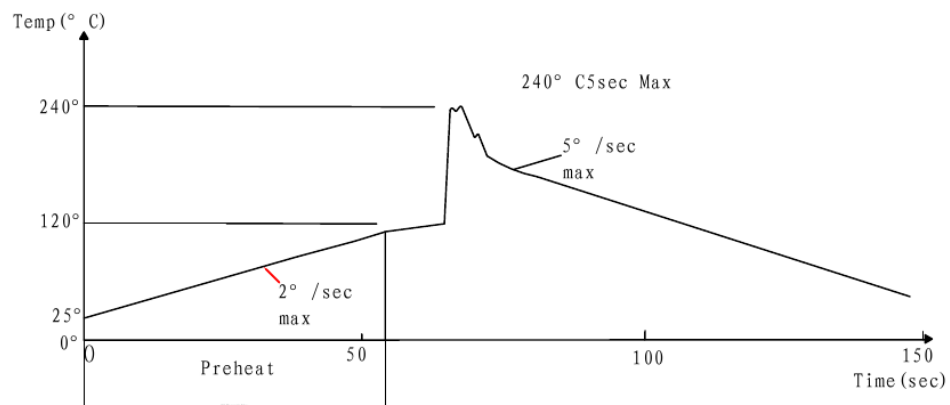
1. Iron:

Soldering Iron: 30W Max  
Temperature 350° C Max  
Soldering Time: 3 Seconds Max (One Time)  
Distance: 2mm Min (From solder joint to body)

2. Wave Soldering Profile

Dip Soldering

Preheat: 120° C Max  
Preheat time: 60seconds Max  
Ramp-up  
2° C/sec (max)  
Ramp-Down: -5° C/sec (max)  
Solder Bath: 240° C Max  
Dipping Time: 3 seconds Max  
Distance: 2mm Min (From solder joint to body)



◆

■ Reliability Persult

Test Classification	Test Item	Test Condititons	Test Duration	Sample Size	AC/RE
Life Test	Room Temperatuer DC Operating Life Test	Ta=25°C ± 5°C, IF=20mA	1000Hrs	5PCS	0/1
Environment Test	Thermal Shock Test	-10°C ± 5°C ← → +100°C ± 5°C 5min. 10sec. 5min	50cycles	5PCS	0/1
	Temperature Cycle Test	-55°C ± 5°C ← → +85°C ± 5°C 30min. 5min. 30min	50cycles	5PCS	0/1
	High Temperature High Humidity test	Ta=85°C ± 5°C RH=85% ± 0.5%RH	1000Hrs	5PCS	0/1
	High Temperature Storage	Ta=100°C ± 5°C	1000Hrs	5PCS	0/1
	Low Temperature Storage	Ta=-55°C ± 5°C	1000Hrs	5PCS	0/1
Mechanical Test	Resistance to Soldering Heat	Ta=240°C ± 5°C	5sec	5PCS	0/1
	Lead Integrity	Load 2.5N (0.25kgf) 0° - 90° - 0°	3times	5PCS	0/1

■ Criteria for Judging The Damage

Item	Symbol	Test Conditions	Criteria for Judgment	
			Min.	Max.
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20mA		U. S. L. *1. 2
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V		U. S. L. *2. 2
Luminous Intensity	I <sub>V</sub>	I <sub>F</sub> =20mA	L. S. L. ** × 0. 7	

U. S. L. \* : Upper Standard Level

L. S. L. \*\* : Lower Standard Level