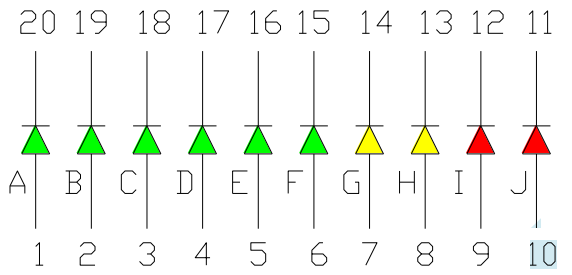
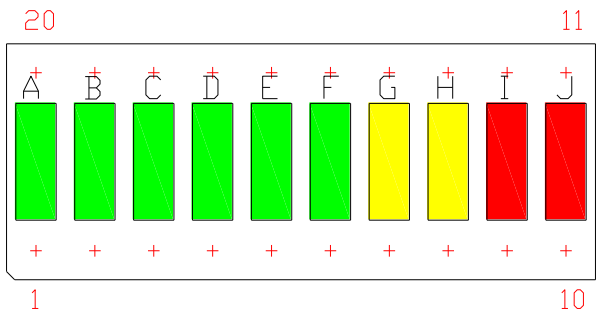
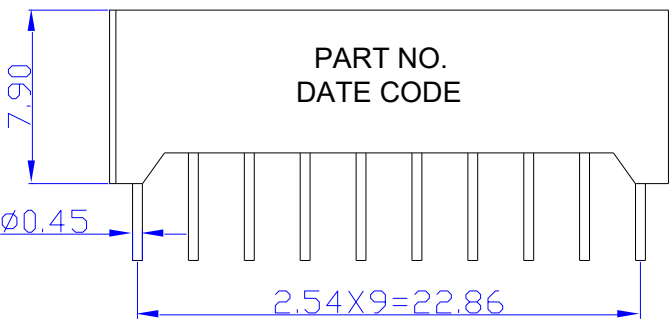
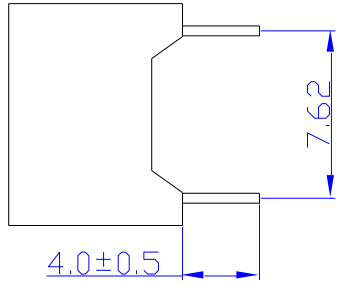
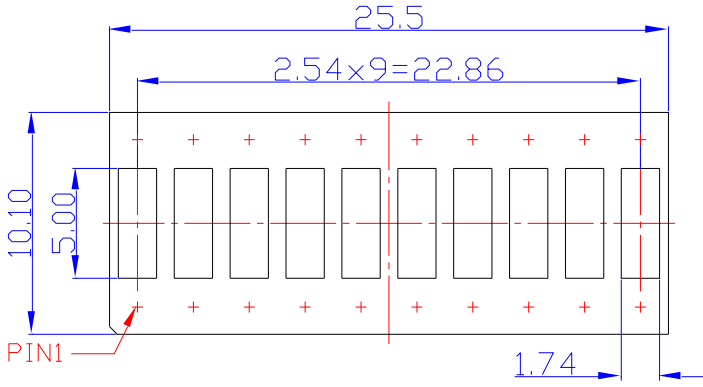


SPECIFICATION **CDBT10GT2Y2R2W**
PACKAGE OUTLINES


- Notes:
1. All dimensions are in millimeters (inches).
 2. Tolerance is $\pm 0.25\text{mm}$ (0.01") unless otherwise noted.
 3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Segment Color	Description
CDBT10GT2Y2R2W	InGaAIP	Red	White	Common Anode
	InGaAIP	Yellow	White	Common Anode
	InGaN	Green	White	Common Anode



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ABSOLUTE MAXIMUM RATINGS
(TA=25°C)

Parameter	Symbol	Max Rating			Unit
		Yellow	Green	Red	
Forward Current	IF	25	30	25	mA
Reverse Voltage	VR	5	5	5	V
Power Dissipation	Pd	70	120	70	mW
Operating Temperature Range	TOP	-25~+85			°C
Storage Temperature Range	TSTG	-25~+85			°C
Peak Pulsing Current (tp ≤ 10 μS, duty cycle = 0.005)	IFP	90	120	90	mA
Soldering Temperature	TSOL	Max 260°C for 5 sec Max			

OPTICAL-ELECTRICAL CHARACTERISTICS
(TA=25°C)

Parameter	Symbol	Test Condition	Color	Value			Unit
				Min	Typ	Max	
Luminous Intensity	IV	IF = 20mA	Red	-	60	-	mcd
			Green	-	100	-	
			Yellow	-	60	-	
Forward Voltage	VF	IF = 20mA	Red	-	2.0	2.6	V
			Green	-	3.2	4.0	
			Yellow	-	2.0	2.6	
Spectral Radiation Bandwidth	Δλ	IF = 20mA	Red	-	20	-	nm
			Green	-	30	-	
			Yellow	-	20	-	
Dominant Wavelength	λD	IF = 20mA	Red	619	624	629	nm
			Green	500	525	535	
			Yellow	585	590	595	



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TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES (RED)

(25 °C Free Air Temperature Unless Otherwise Specified)

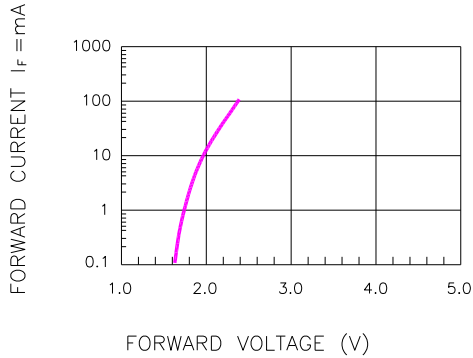


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

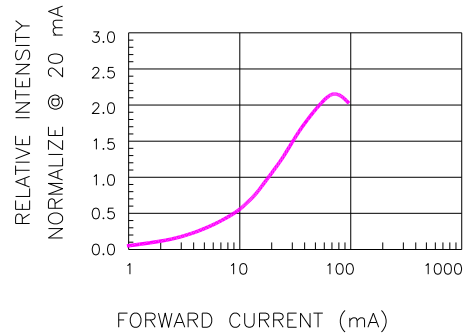


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

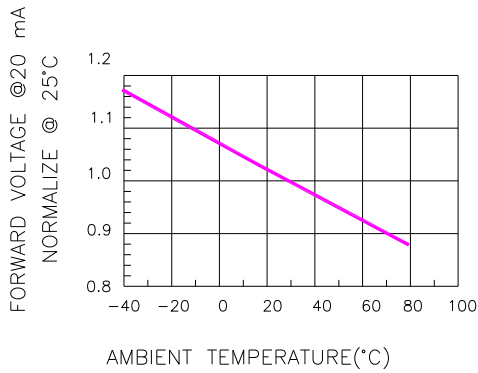


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

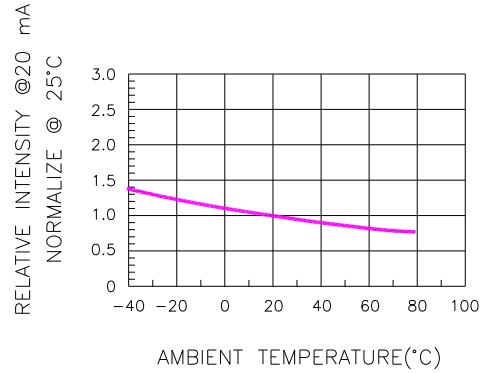


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

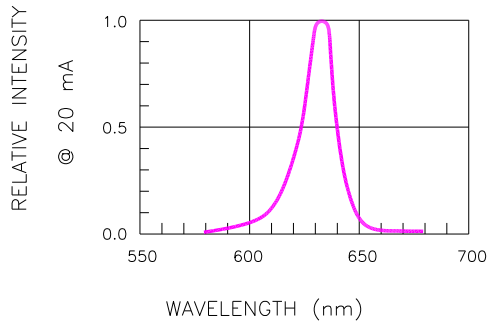


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

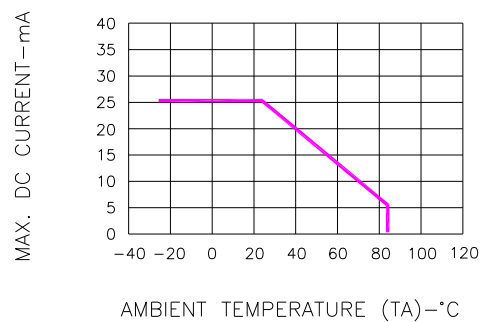


Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE



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TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES (GREEN)

Typical Electro-optical Characteristic Curves (25 °C Free Air Temperature Unless Otherwise Specified)

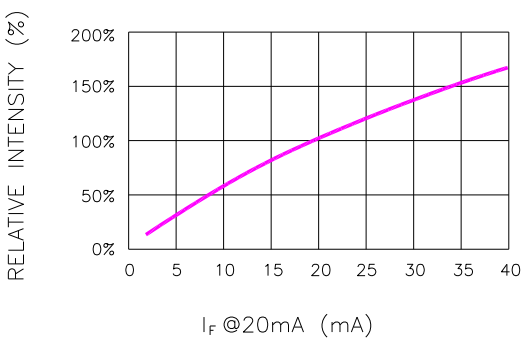


Fig.1 RELATIVE INTENSITY VS. FORWARD CURRENT

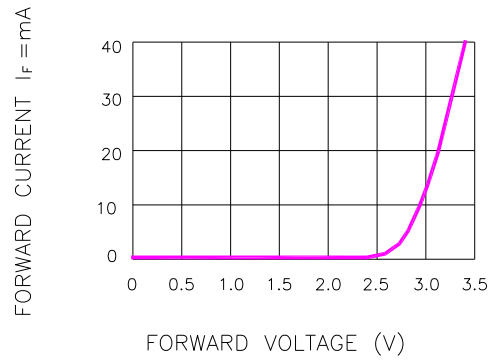


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

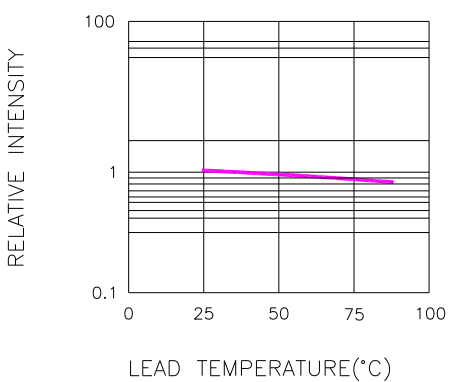


Fig.3 RELATIVE INTENSITY VS. LEAD TEMPERATURE (PULSED 20 mA; 300us PULSE, 10ms PERIOD)

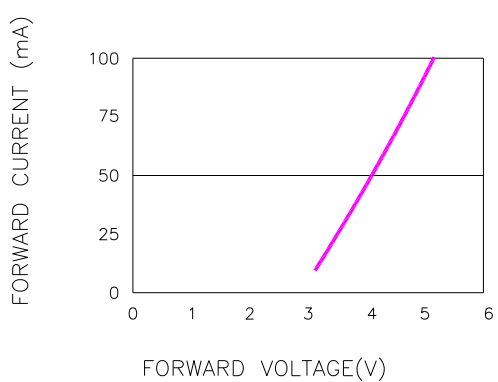


Fig.4 PEAK FORWARD VOLTAGE VS. FORWARD (100us TEST PULSE, 1% DUTY CYCLE)

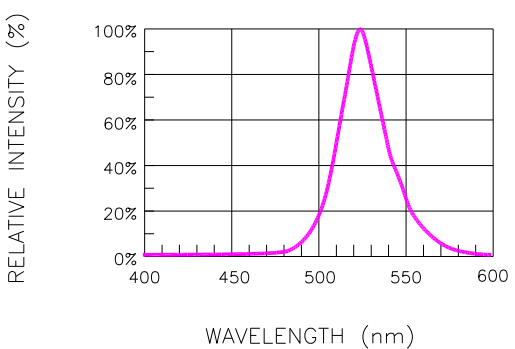


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

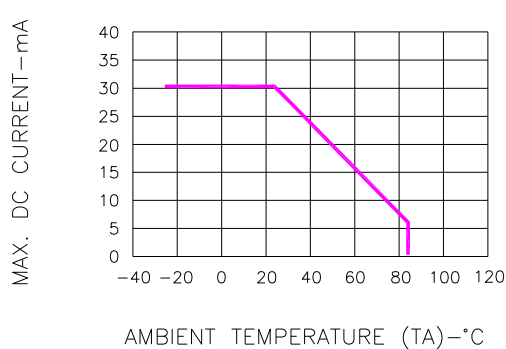


Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE



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TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES (YELLOW)

(25°C Free Air Temperature Unless Otherwise Specified)

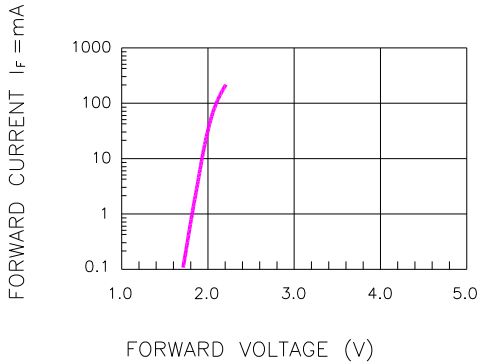


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

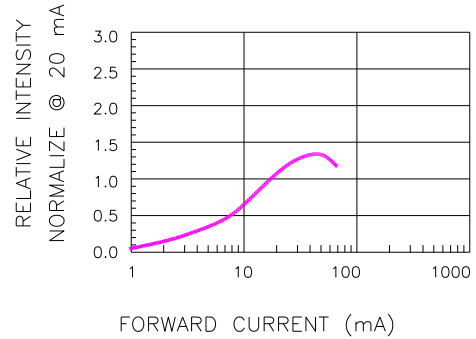


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

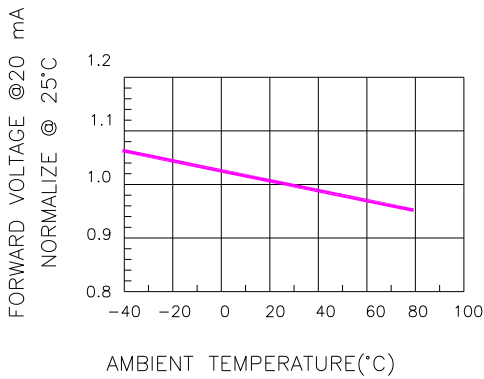


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

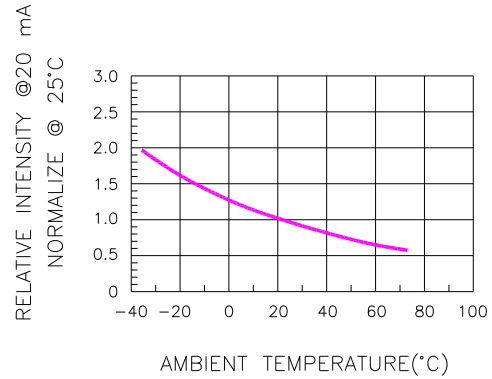


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

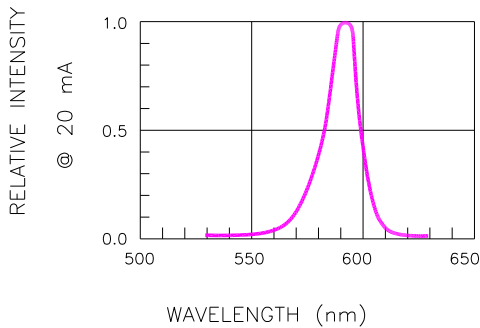


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

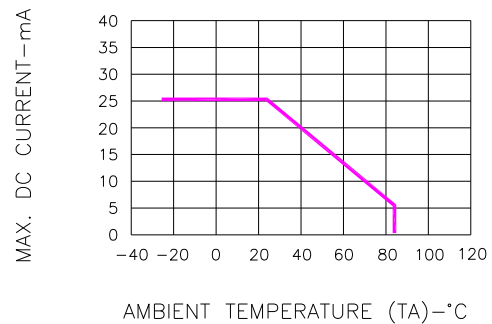


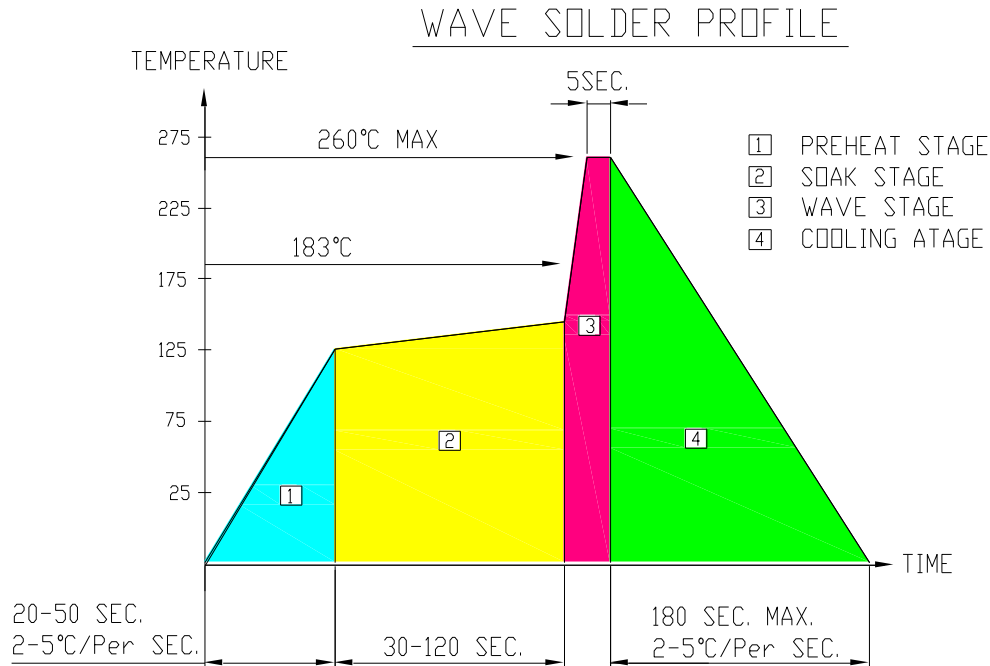
Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE



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SOLDERING CONDITIONS

● RECOMMEND SOLDERING PROFILE



● Note:

- Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C
- Peak wave soldering temperature between 245°C ~ 225°C for 3 sec (5 sec max)
- No more than one wave soldering pass

● SOLDERING IRON

Basic spec is ≤ 4 sec when 260°C. If temperature is higher, time should be shorter (+10°C → 1 sec). Power dissipation of Iron should be smaller than 15W, and temperature should be controllable. Surface temperature of the device should be under 230°C.

● REWORK

Customer must finish rework within ≤ 3 sec under 350°C.
The head of soldering iron cannot touch copper foil.



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