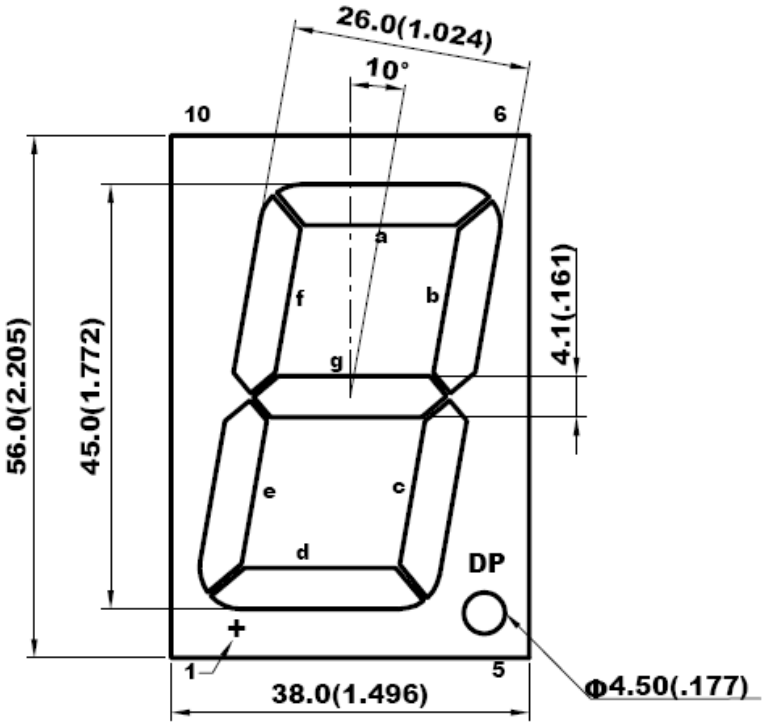
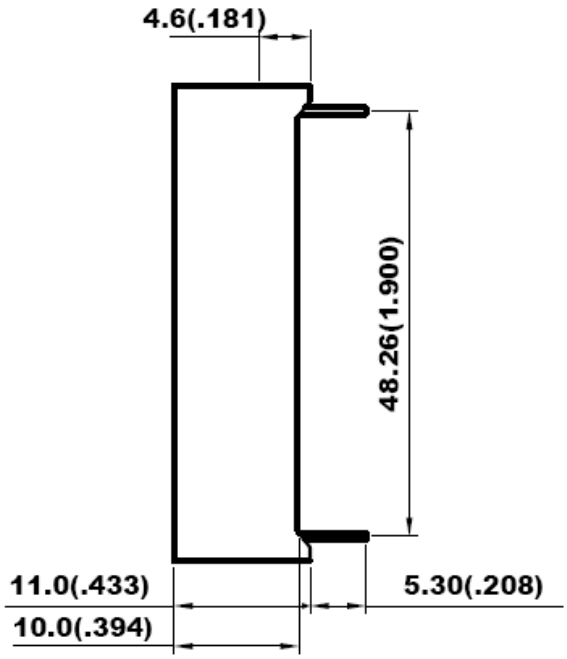
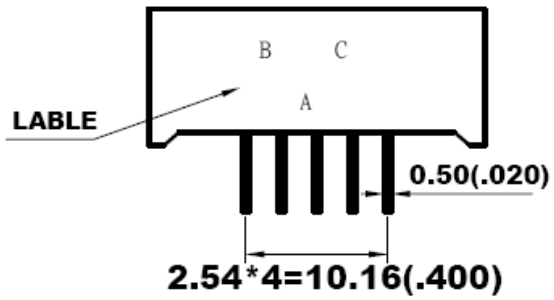
SPECIFICATIONS CDSX18 SERIES

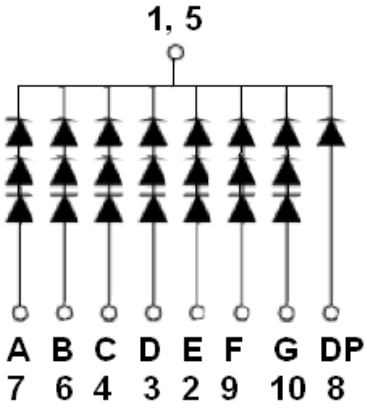
PACKAGE DIMENSIONS



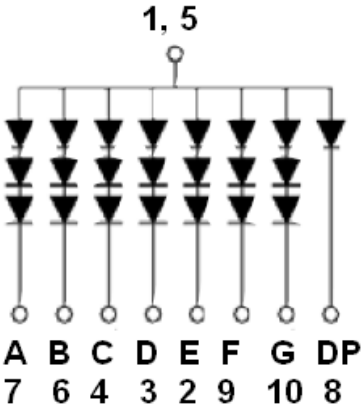




CDSC18 SERIES



CDSA18 SERIES



Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25mm (0.01”) unless otherwised noted.
3. Specifications are subject to change without notice.

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PART NUMBER DESCRIPTION

Part Number	Chip Material	Color of Emission	Lens Type	Description
CDSA18R1W	GaAsP	Red	White Segment	Common Anode
CDSC18R1W	GaAsP	Red	White Segment	Common Cathode
CDSA18RR1W	AlGaAs	Super Red	White Segment	Common Anode
CDSC18RR1W	AlGaAs	Super Red	White Segment	Common Cathode
CDSA18Y1W	GaAsP	Yellow	White Segment	Common Anode
CDSC18Y1W	GaAsP	Yellow	White Segment	Common Cathode
CDSA18G1W	GaP	Green	White Segment	Common Anode
CDSC18G1W	GaP	Green	White Segment	Common Cathode

OPTICAL-ELECTRICAL CHARACTERISTICS (TA=25°C)

Part Number	Wave-length (nm)	Absolute Maximum				Electro-Optical Characteristics					
		Δλ	P_D	I_{AF}	I_{PF}	V_F (V)			I_F	I_V (μcd)	
		nm	mW	mA	(Peak)	Min	Typ	Max	(Rec)	Min	Typ
CDSA18R1W	625	45	75	30	100	5.1	5.55	7.5	10	8000	24000
CDSC18R1W	625	45	75	30	100	5.1	5.55	7.5	10	8000	24000
CDSA18RR1W	640	20	72	30	100	4.8	5.25	7.2	10	26000	75000
CDSC18RR1W	640	20	72	30	100	4.8	5.25	7.2	10	26000	75000
CDSA18Y1W	588	35	75	30	100	5.1	6.3	8.0	10	3000	8000
CDSC18Y1W	588	35	75	30	100	5.1	6.3	8.0	10	3000	8000
CDSA18G1W	568	30	65	25	100	5.1	6.3	8.0	10	12000	26000
CDSC18G1W	568	30	65	25	100	5.1	6.3	8.0	10	12000	26000

ABSOLUTE MAXIMUM RATINGS (TA=25°C)

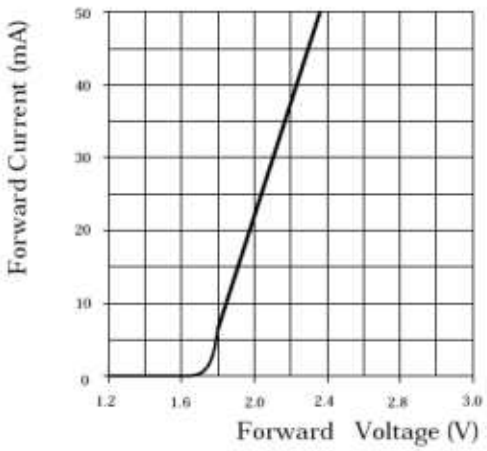
Reverse Voltage	5V	Spectral Line half-width (λ)	nm
Reverse Current (Vr = 5V)	100μA	Power Dissipation (P_D)	mW
Operating Temperature	-40˚C~+85˚C	Peak Forward Current (Duty 1/10, @ KHz)	mA
Storage Temperature	-40˚C~+85˚C	Recommended Operation Current (I_F Rec)	mA
Soldering Temperature	250C~260C for 3 sec.	Average Luminous Intensity (I_F=10)	μA

RoHS Compliant Lead Free

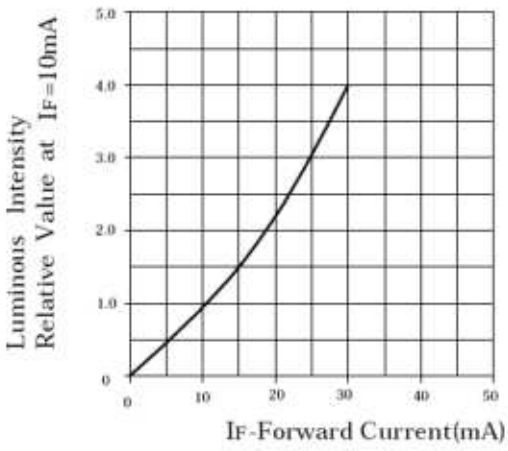
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OPTICAL CHARACTERISTIC CURVES - RED

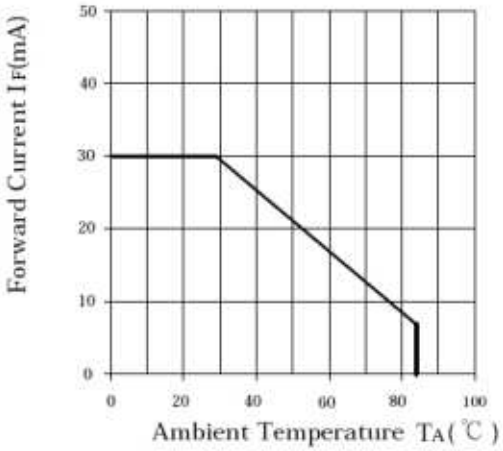
Forward Current vs. Forward Voltage



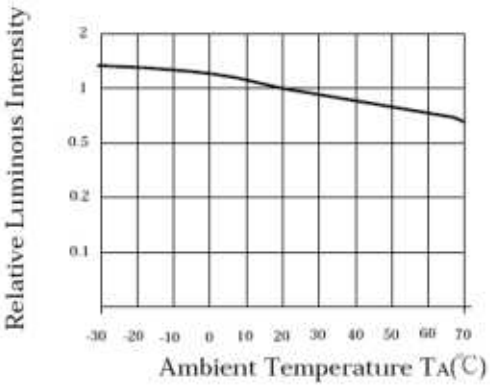
Relative Intensity vs. Forward Current



Forward Current vs. Ambient Temperature



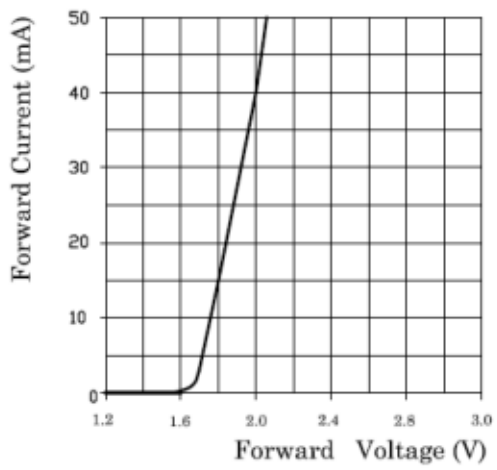
Luminous Intensity vs. Ambient Temperature



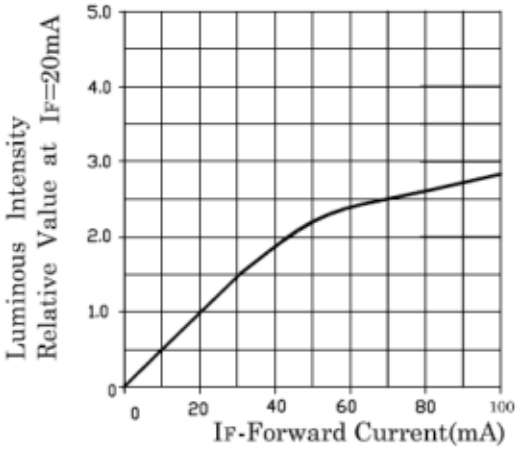
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OPTICAL CHARACTERISTIC CURVES - SUPER RED

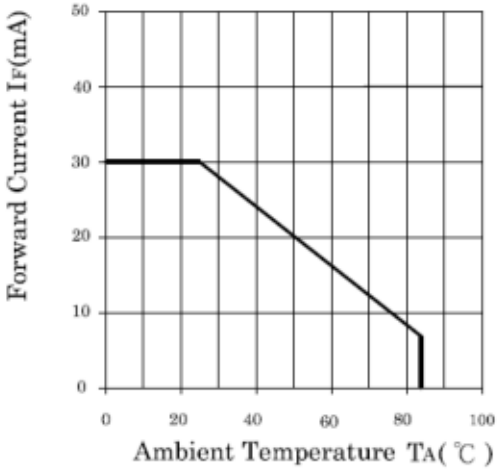
Forward Current vs. Forward Voltage



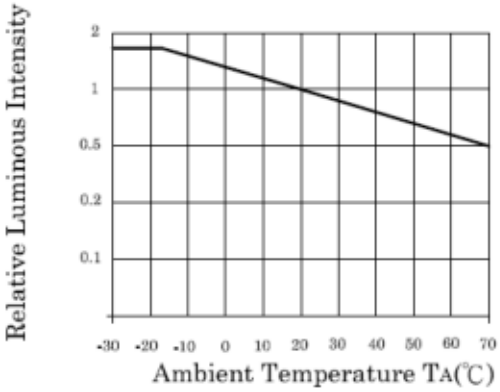
Relative Intensity vs. Forward Current



Forward Current vs. Ambient Temperature



Luminous Intensity vs. Ambient Temperature

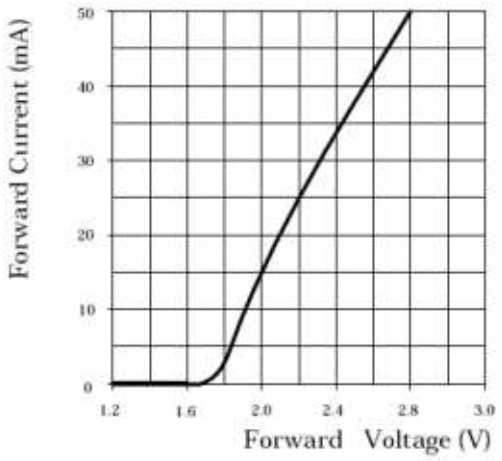


RoHS Compliant
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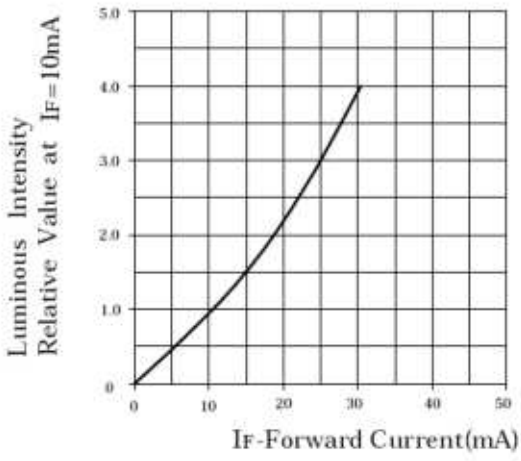
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OPTICAL CHARACTERISTIC CURVES - YELLOW

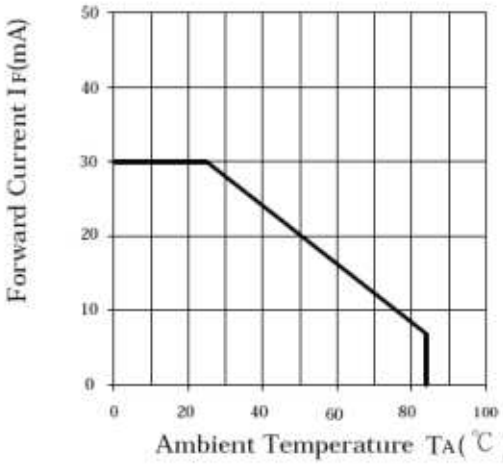
Forward Current vs. Forward Voltage



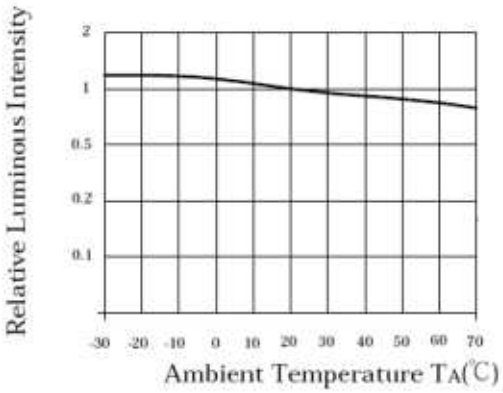
Relative Intensity vs. Forward Current



Forward Current vs. Ambient Temperature



Luminous Intensity vs. Ambient Temperature

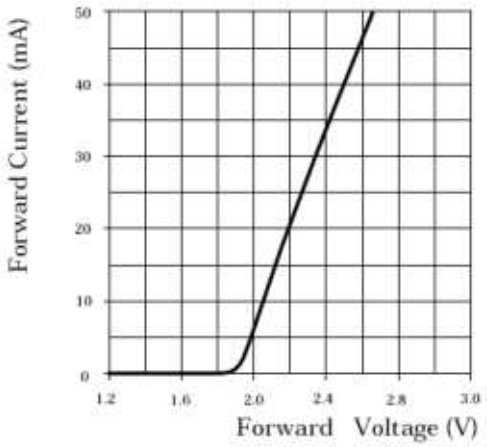


RoHS Compliant
Lead Free

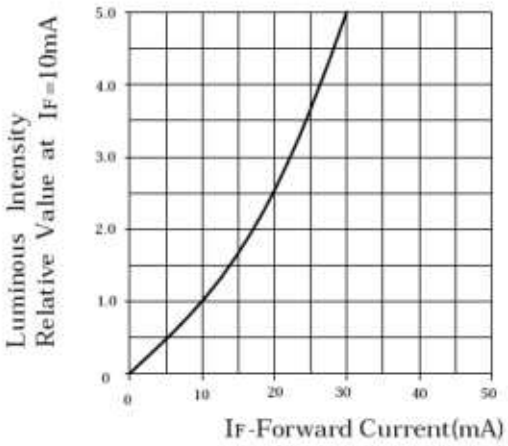
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OPTICAL CHARACTERISTIC CURVES - GREEN

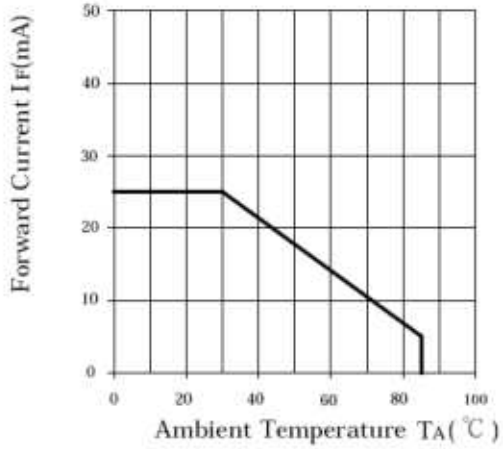
Forward Current vs. Forward Voltage



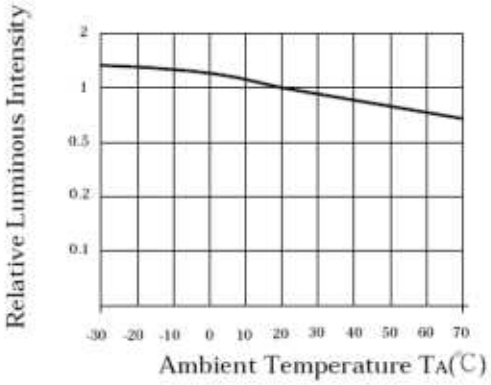
Relative Intensity vs. Forward Current



Forward Current vs. Ambient Temperature



Luminous Intensity vs. Ambient Temperature



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SOLDERING CONDITIONS - DISPLAY

* Solder the LED no closer than 3mm from the base of the epoxy bulb. Soldering beyond the base of the tie bar is recommended.

* Recommended soldering conditions

Dip Soldering	
Pre-Heat	100 ˚C Max
Pre-Heat Time	60 Second Max
Solder Bath Temperature	260 ˚C Max
Dippng Time	5 Second Max
Dipping Position	No lower than 3mm from the base of the epoxy

Hand Soldering		
	3mm Series	Others
Temperature Soldering Time Position	300 ˚C Max 3 Second Max No closer than 3mm from the base of the epoxy	350 ˚C Max 3 Second Max No closer than 3mm from the base of the epoxy

* Do not apply any stress to the lead. Particularly when heated.

* The LED must not be repositioned after soldering.

* After soldering the LEDs, the epoxy bulb should be protected from mechanical shock or vibration until the LEDs return to room temperature.

* Direct soldering onto a PC board should be avoided. Mechanical stress to the resin may be caused by the PC board warping or from the clinching and cutting of the leadframes. When it is absolutely necessary, the LEDs may be mounted in this fashion, but, the user will assume responsibility for any problems. Direct soldering should only be done after testing has confirmed that no damage, such as wire bond failure or resin deterioration, will occur. LEDs should not be soldered directly to double sided PC boards because the heat will deteriorate the epoxy resin.

* When it is necessary to clamp the LEDs to prevent soldering failure, it is important to minimize the mechanical stress on the LEDs.

* Cut the LED leadframes at room temperature. Cutting the leadframes at high temperature may cause LED failure.

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