



PRODUCT SPECIFICATION

Model No : CSD-528E/529E

Descriptions:

- 0.5 Inch Dual Digits Display
- CSD-528: Common Anode
- CSD-529: Common Cathode
- Emitting Color: Orange



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

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Model No : CSD-528/529E

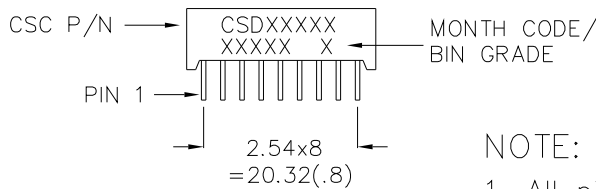
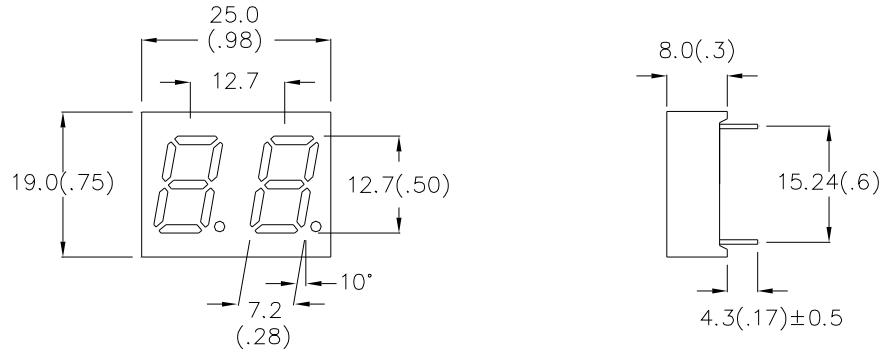
Features -

1. 0.5 inch (12.7mm) dight height.
2. Case mold type.
3. RoHs compliant.
4. Low power consumption.
5. Easy mounting on P.C. board or socket.

Device Selection Guide -

Part No.	Chip		Description
	Material	Emitted Color	
CSD-528E	GaAsP	Orange	Common Anode
CSD-529E	GaAsP	Orange	Common Cathode

Package Dimensions -



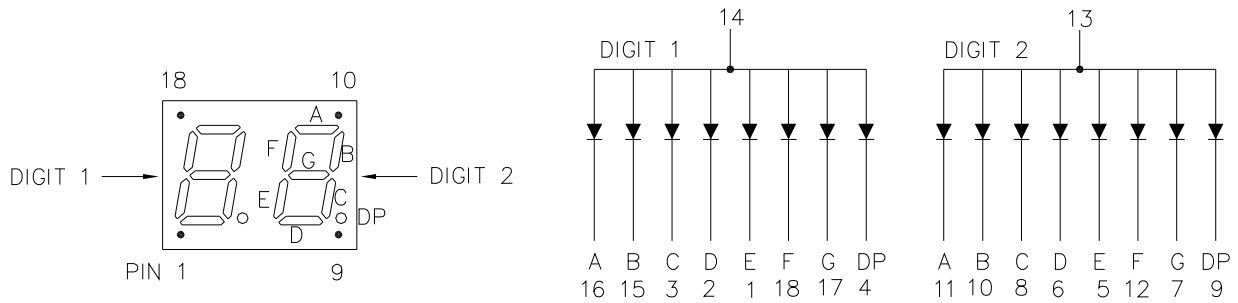
NOTE:

1. All pins are $\phi 0.5(.02)$
2. Dimension in millimeter (inch), and tolerance is $\pm 0.25 (.01)$ unless otherwise noted.



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Internal Circuit Diagrams -



CSD-528 Common Anode.
(CSD-529 is Common Cathode.)

Absolute Maximum Rating -

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	Pd	70	mW
Continuous Forward Current Per Dice	IAF	25	mA
Peak Current Per Dice(Duty cycle 1/10, 1KHz)	IPF	90	mA
Derating Linear From 25°C Per Dice	-	0.33	mA/°C
Reverse Voltage Per Dice	VR	5	V
Operating Temp.	Topr	-35 ~ +85	°C
Storage Temp.	Tstg	-35 ~ +85	°C
Solder temperature 1/16 inch below seating plane for 3 seconds at 260°C			



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■ Electro-optical Characteristics -

(Ta=25°C)

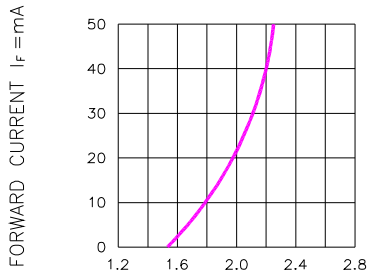
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Segment	V_F	-	2.1	2.8	V	$I_F=20mA$
Luminous Intensity Per Segment	I_v	-	3.5	-	ucd	$I_F=10mA$
Peak Emission Wavelength	λ_p	-	632	-	nm	$I_F=20mA$
Dominant Wavelength	λ_d	-	624	-	nm	$I_F=20mA$
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	35	-	nm	$I_F=20mA$
Reverse Current	I_R	-	-	100	μA	$V_R=5V$
Luminous Intensity Matching Ratio	I_V-m	-	-	2:1	-	$I_F=10mA$



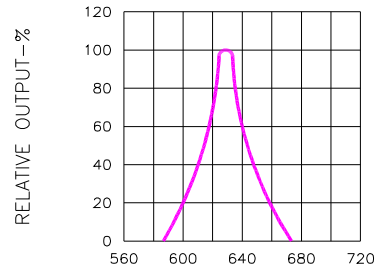
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Typical Electrical / Optical Characteristics Curves -

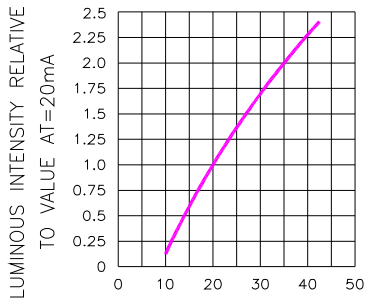
(Ta = 25°C Unless Otherwise Noted)



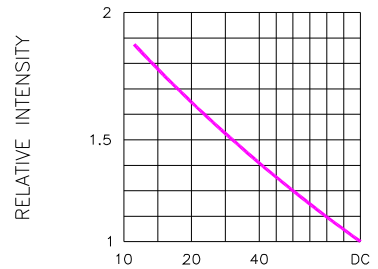
FORWARD VOLTAGE (V_F)-VOLTS
Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE



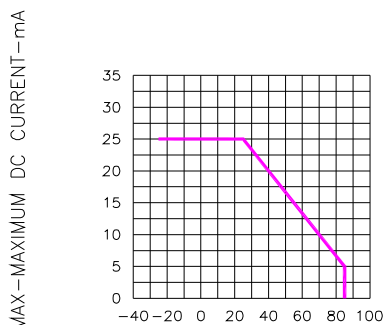
WAVELENGTH (λ)-nm
Fig.2 SPECTRAL RESPONSE



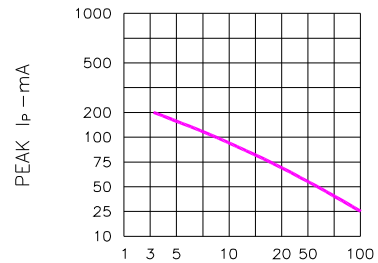
I_F - FORWARD CURRENT - mA
Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



DUTY CYCLE % PER SEGMENT (AVERAGE I_F = 10mA)
Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE



T_A - AMBIENT TEMPERATURE °C
Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE



DUTY CYCLE %
Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1 KHz)