LD1-XX56XX-XXXR
LD2-XX56XX-XXXR
LD3-XX56XX-XXXR
LD4-XX56XX-XXXR

SERIES

0.56"SEVEN-SEGMENT NUMERIC LED DISPLAYS

FEATURES

- High intensity and reliability.
- High quality and low cost.
- Choice of five colors: SH. Red/ Orange/Bright Green.
- Low power requirement.
- I. C. compatible.
- Easy assembly.

DESCRIPTION

The LD1-XX56XX-XXXR,LD2-XX56XX-XXXR, LD3-XX56XX-XXXR and LD4-XX56XX-XXXR series are 0.56 inch (14.2mm) height single, dual, triad and quad digit displays.

SH. Red displays have black face or gray face and white segment or red segment.

Orange displays have black face or gray face and white segment or red segment.

Bright Green displays have black face or gray face and white segment or green segment.

DEVICES

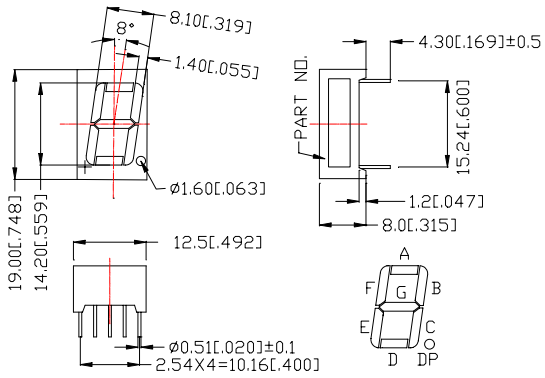
PART NO.			DESCRIPTION	PACKAGE DIMENSION	INTERNAL CIRCUIT DIAGRAM
SH.RED	ORANGE	BRIGHT GREEN			
LD1-BW56SR-A11R	LD1-BW56HO-A11R	LD1-BW56GU-A11R	Common Anode Rt. Hand Decimal	A	A
LD1-BW56SR-C11R	LD1-BW56HO-C11R	LD1-BW56GU-C11R	Common Cathode Rt. Hand Decimal	A	B
LD2-BW56SR-A11R	LD2-BW56HO-A11R	LD2-BW56GU-A11R	Common Anode Rt. Hand Decimal	B	C
LD2-BW56SR-C11R	LD2-BW56HO-C11R	LD2-BW56GU-C11R	Common Cathode Rt. Hand Decimal	B	D
LD3-BW56SR-A11R	LD3-BW56HO-A11R	LD3-BW56GU-A11R	Common Anode Rt. Hand Decimal	C	E
LD3-BW56SR-C11R	LD3-BW56HO-C11R	LD3-BW56GU-C11R	Common Cathode Rt. Hand Decimal	C	F
LD3-BW56SR-A21R	LD3-BW56HO-A21R	LD3-BW56GU-A21R	Common Anode Rt. Hand Decimal	D	G
LD3-BW56SR-C21R	LD3-BW56HO-C21R	LD4-BW56GU-C21R	Common Cathode Rt. Hand Decimal	D	H

DEVICES

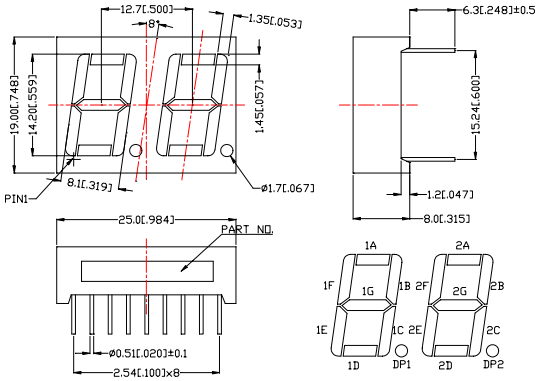
PART NO.			DESCRIPTION	PACKAGE DIMENSION	INTERNAL CIRCUIT DIAGRAM
SH.RED	ORANGE	BRIGHT GREEN			
LD4-BW56SR-A11R	LD4-BW56HO-A11R	LD4-BW56GU-A11R	Common Anode Rt. Hand Decimal	E	I
LD4-BW56SR-C11R	LD4-BW56HO-C11R	LD4-BW56GU-C11R	Common Cathode Rt. Hand Decimal	E	J
LD4-BW56SR-A21R	LD4-BW56HO-A21R	LD4-BW56GU-A21R	Common Anode Rt. Hand Decimal	F	K
LD4-BW56SR-C21R	LD4-BW56HO-C21R	LD4-BW56GU-C21R	Common Cathode Rt. Hand Decimal	F	L

PACKAGE DIMENSIONS

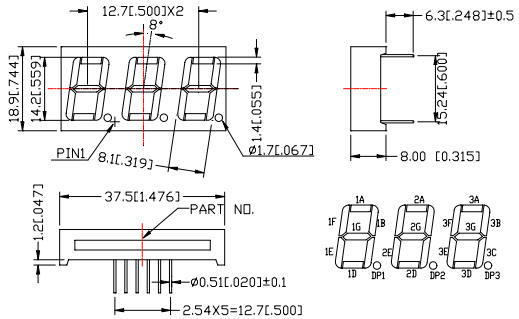
A. LD1-XX56XX-A1XR/C1XR



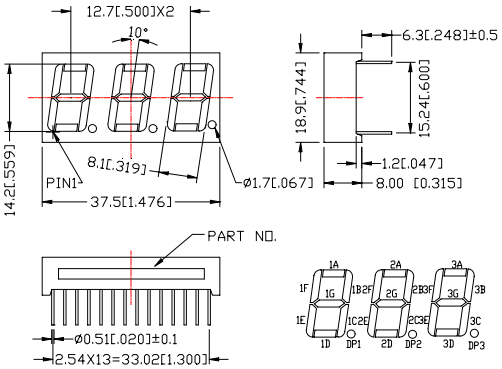
B. LD2-XX56XX-A1XR/C1XR



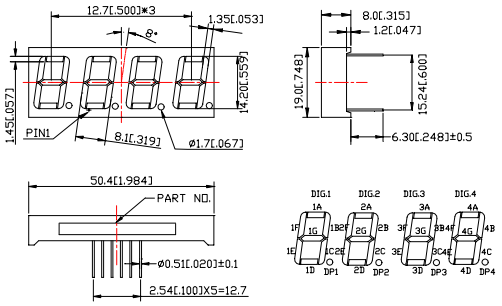
D. LD3-XX56XX-A1XR/C1XR



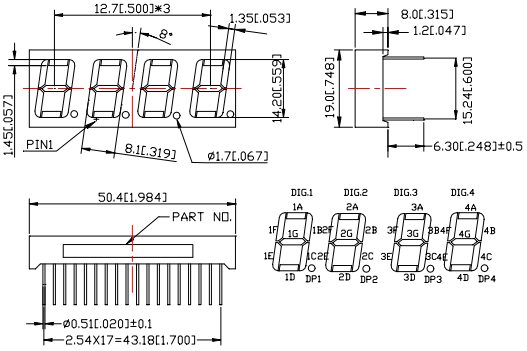
E. LD3-XX56XX-A2XR/C2XR



E. LD4- XX56XX-A1XR/C1XR



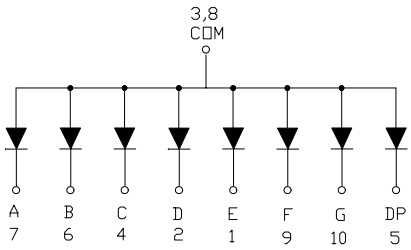
F. LD4-XX56XX-A2XR/C2XR



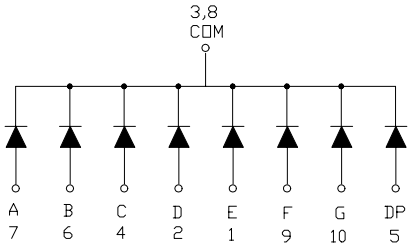
NOTES: All dimensions are in millimeters (inches) tolerance are± 0.25mm(0.010) unless otherwise noted.

INTERNAL CIRCUIT DIAGRAM

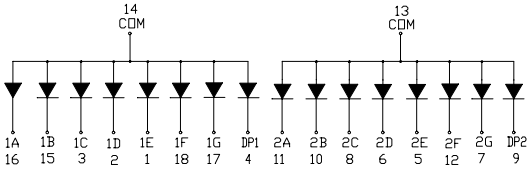
A. LD1-XX56XX-C1XR



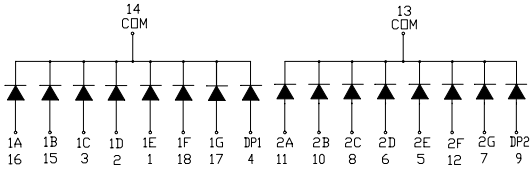
B. LD1-XX56XX-A1XR



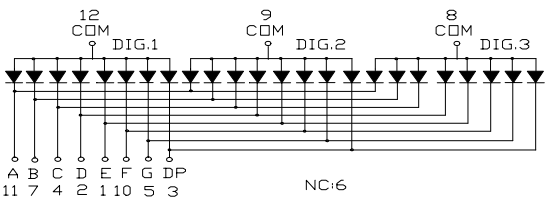
C. LD2-XX56XX-A1XR



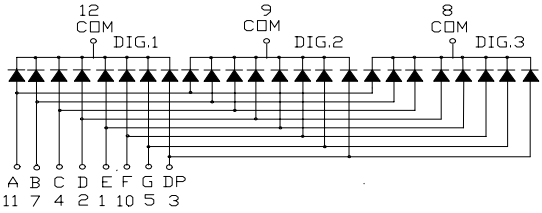
D. LD2-XX56XX-C1XR



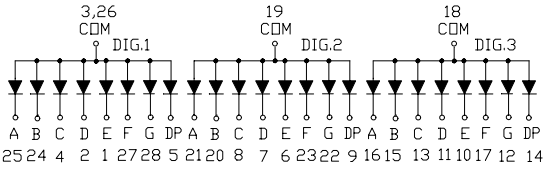
E. LD3-XX56XX-A1XR



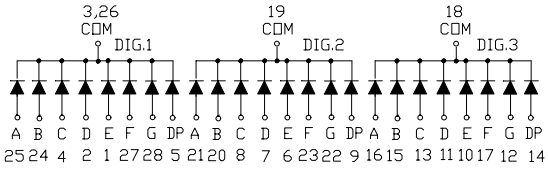
F. LD3-XX56XX-C1XR



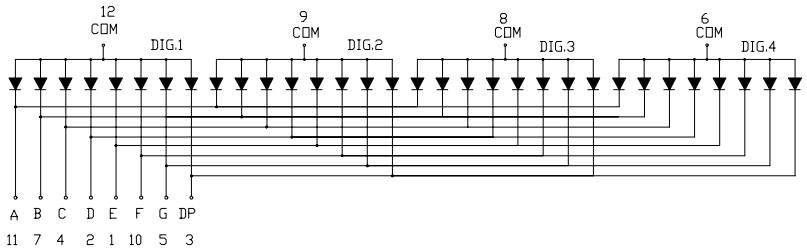
G. LD3-XX56XX-A2XR



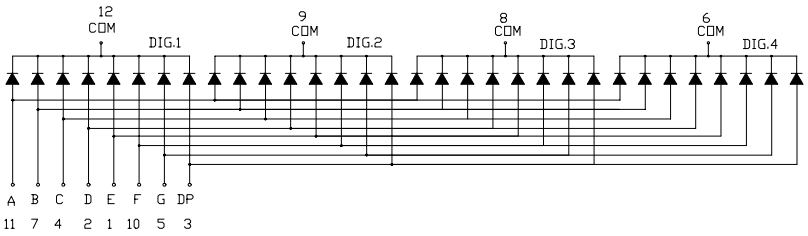
H. LD3-XX56XX-C2XR



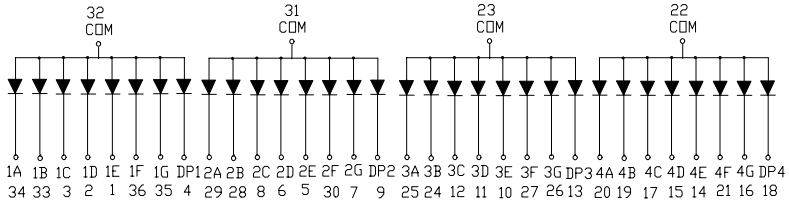
I. LD4-XX56XX-A1XR



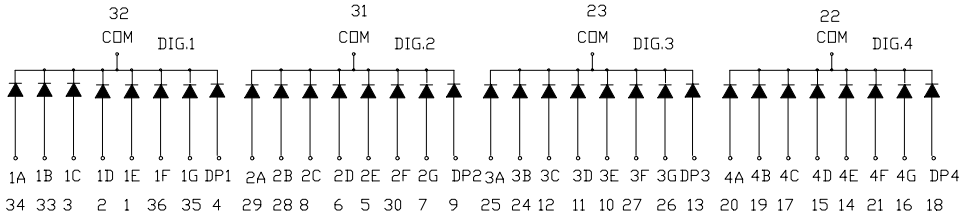
J. LD4-XX56XX-C1XR



K. LD4-XX56XX-A2XR



L. LD4-XX56XX-C2XR



PIN CONNECTION

PIN NO.	CONNECTION		
	G.H. LD3-XX56XX-A2XR/C2XR	**I.J. LD4-XX56XX-A1XR/C1XR**	**K.L. LD4-XX56XX-A2XR/C2XR**
1	1E	E	1E
2	1D	D	1D
3	Common Anode/Cathode DIG.1	DP	1C
4	1C	C	DP1
5	DP1	G	2E
6	2E	Common Anode/Cathode DIG.4	2D
7	2D	B	2G
8	2C	Common Anode/Cathode DIG.3	2C
9	DP2	Common Anode/Cathode DIG.2	DP2
10	3E	F	3E
11	3D	A	3D
12	3G	Common Anode/Cathode DIG.1	3C
13	3C		DP3
14	DP3		4E
15	3B		4D
16	3A		4G
17	3F		4C
18	Common Anode/Cathode DIG.3		DP4
19	Common Anode/Cathode DIG.2		4B
20	2B		4A
21	2A		4F
22	2G		Common Anode/Cathode DIG.4
23	2F		Common Anode/Cathode DIG.3
24	1B		3B
25	1A		3A
26	Common Anode/Cathode DIG.1		3G
27	1F		3F
28	1G		2B
29			2A
30			2F
31			Common Anode/Cathode DIG.2
32			Common Anode/Cathode DIG.1
33			1B
34			1A
35			1G
36			1F

PIN CONNECTION

PIN NO.	CONNECTION		
	A.B. **LD1-XX56XX-A1X/C1XR**	**C.D.** **LD2-XX56XX-A1X/C1XR**	**E.F.** **LD3-XX56XX-A1X/C1XR**
1	E	1E	E
2	D	1D	D
3	Common Anode/Cathode	1C	DP
4	C	DP1	C
5	DP	2E	G
6	B	2D	NC
7	A	2G	B
8	Common Anode/Cathode	2C	Common Anode/Cathode DIG.3
9	F	DP2	Common Anode/Cathode DIG.2
10	G	2B	F
11		2A	A
12		2F	Common Anode/Cathode DIG.1
13		Common Anode/Cathode DIG.2	
14		Common Anode/Cathode DIG.1	
15		1B	
16		1A	
17		1G	
18		1F	

ABSOLUTE MAXIMUM RATINGS AT T_a=25°C

PARAMETER	SH.RED	ORANGE	BRIGHT GREEN	UNIT
Power Dissipation Per Segment	50	65	65	mW
Peak Forward Current Per Segment (1/10duty cycle 0.1ms pulse width)	100	100	100	mA
Continuous Forward Current Per Segment Derating Linear From 25°C Per Segment	25 0.30	25 0.20	25 0.33	mA mA/°C
Reverse Voltage Per Segment	5	5	5	V
Operating Temperature Range	-35°C to + 85°C			
Storage Temperature Range	-35°C to + 85°C			
Solder Temperature 1/16 inch below seating plane for 3 seconds at 260°C				

ELECTRICAL/OPTICAL CHARACTERISTICS AT T_a=25°C

LD1-BW56SR-A11R/C11R;LD2-BW56SR-A11R/C11R;LD3-BW56SR-A11R/C11R/A21R/C21R
LD4-BW56SR-A11R/C11R/A21R/C21R

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Luminous Intensity	I_V	3.0	6.0	—	mcd	I_F=10mA
Dominant Wavelength	λ_D	—	643	—	nm	I_F=20mA
Peak Emission Wavelength	λ_P	—	660	—	nm	I_F=20mA
Spectral Line Half-Width	$\Delta\lambda$	—	20	—	nm	I_F=20mA
Forward Voltage Per Segment	V_F	—	1.8	2.0	V	I_F=20mA
Reverse Current Per Segment	I_R	—	—	100	μA	V_R=5V
Luminous Intensity Matching Ratio (Segment To Segment)	I_{V-m}			2:1		I_F=10mA

LD1-BW56HO-A11R/C11R;LD2-BW56HO-A11R/C11R;LD3-BW56HO-A11R/C11R/A21R/C21R
LD4-BW56HO-A11R/C11R/A21R/C21R

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Luminous Intensity	I_V	1.25	3.5	—	mcd	I_F=10mA
Dominant Wavelength	λ_D	—	622	—	nm	I_F=20mA
Peak Emission Wavelength	λ_P	—	632	—	nm	I_F=20mA
Spectral Line Half-Width	$\Delta\lambda$	—	35	—	nm	I_F=20mA
Forward Voltage Per Segment	V_F	—	2.05	2.6	V	I_F=20mA
Reverse Current Per Segment	I_R	—	—	100	μA	V_R=5V
Luminous Intensity Matching Ratio (Segment To Segment)	I_{V-m}			2:1		I_F=10mA

LD1-BW56GU-A11R/C11R;LD2-BW56GU-A11R/C11R;LD3-BW56GU-A11R/C11R/A21R/C21R
LD4-BW56GU-A11R/C11R/A21R/C21R

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Luminous Intensity	I_V	2.0	4.5	—	mcd	I_F=10mA
Dominant Wavelength	λ_D	—	573	—	nm	I_F=20mA
Peak Emission Wavelength	λ_P	—	568	—	nm	I_F=20mA
Spectral Line Half-Width	$\Delta\lambda$	—	30	—	nm	I_F=20mA
Forward Voltage Per Segment	V_F	1.8	2.25	2.6	V	I_F=20mA
Reverse Current Per Segment	I_R	—	—	100	μA	V_R=5V
Luminous Intensity Matching Ratio (Segment To Segment)	I_{V-m}			2:1		I_F=10mA