



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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**ADH-Tech 0.56” Tri-color Digit Number Display
ACD8143**

Official Product	ACD8143	Customer Part No.	Data Sheet No.
	*****	*****	ACD8143
Specifications are subject to change without notice. Data and drawings herein are copyrighted.		Dec. 30, 2015	Version of 1.0
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Revision History

Revision	Page	Version No.	Revision Date
DS original		1.0	12-30-2015

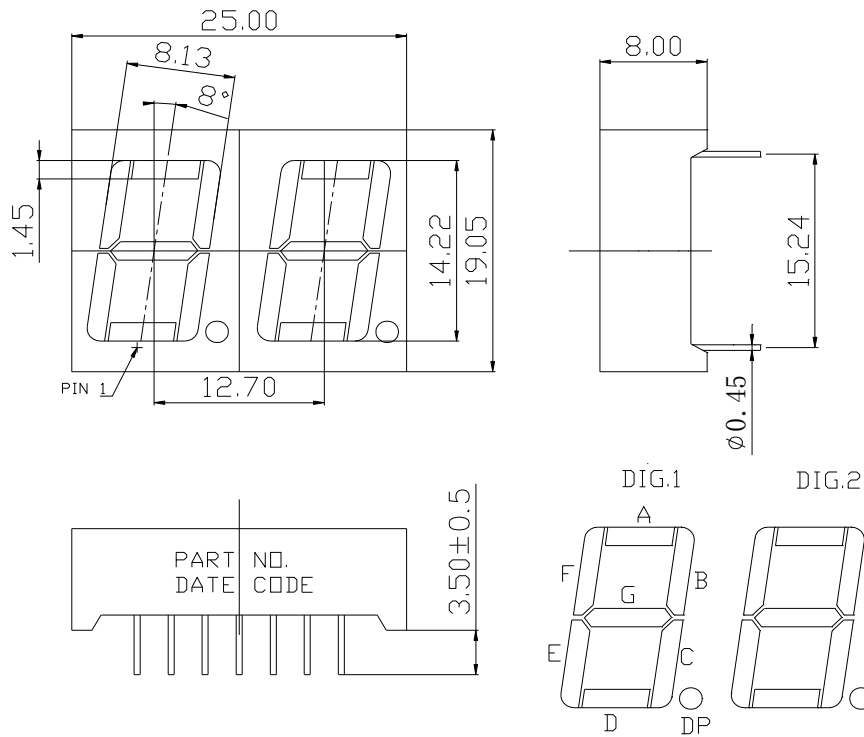
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FEATURES

- * 0.56-inch (14.22 mm) DIGIT HEIGHT
- * CONTINUOUS UNIFORM SEGMENTS
- * LOW POWER REQUIREMENT
- * EXCELLENT CHARACTERS APPEARANCE
- * HIGH BRIGHTNESS & HIGH CONTRAST
- * WIDE VIEWING ANGLE
- * SOLID STATE RELIABILITY
- * CATEGORIZED FOR LUMINOUS INTENSITY
- * LEAD-FREE PACKAGE

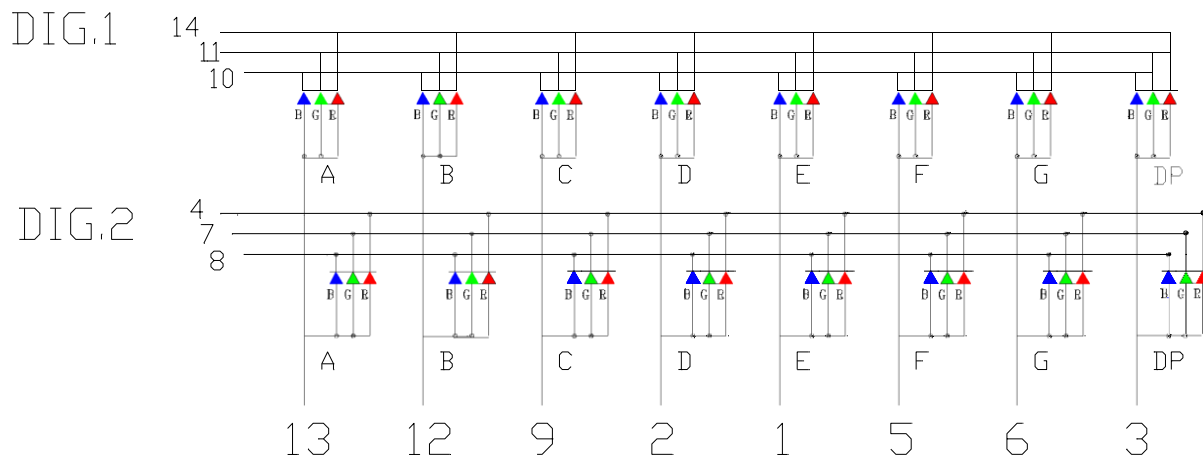
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PACKAGE DIMENSIONS



NOTES: 1.All dimensions are in millimeters. Tolerances are $\pm 0.25\text{mm}$ (0.01") unless otherwise noted.

INTERNAL CIRCUIT DIAGRAM



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ABSOLUTE MAXIMUM RATING AT Ta = 25°C

PARAMETER	R	G	B	UNIT
Power Dissipation Per Segment	150	150	150	mW
Continuous Forward Current Per Segment	10	5	5	mA
Peak Forward Current	30	15	15	mA
Reverse Voltage Per Segment	5	5	5	V
Operating Temperature Range	-30°C to +80°C			
Storage Temperature Range	-40°C to +100°C			
Soldering Conditions:Max 260°C for max 3sec at 1.6mm below seating plane.				

Remarks:This product should be operated in forward bias.If a reverse voltage is continuously applied to the product, such operation can cause migration resulting in LED damage.

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta = 25°C

RED

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	Iv	13.7	21.7		mcd	IF=10mA
Peak Emission Wavelength	λ_p		629		nm	IF=10mA
Spectral Line Half-Width	$\Delta\lambda$		16		nm	IF=10mA
Dominant Wavelength	λ_d		622		nm	IF=10mA
Forward Voltage Per Dot	VF		2.0	2.4	V	IF=10mA
Reverse Current Per Dot	IR			100	μ A	VR=5V
Luminous Intensity Matching Ratio	Iv-m			2:1		IF=10mA

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GREEN

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	Iv	34	70		mcd	IF=10mA
Peak Emission Wavelength	λ_p		520		nm	IF=5mA
Spectral Line Half-Width	$\Delta\lambda$		32		nm	IF=5mA
Dominant Wavelength	λ_d		530		nm	IF=5mA
Forward Voltage Per Dot	VF		2.85	3.4	V	IF=5mA
Reverse Current Per Dot	IR			100	μ A	VR=5V
Luminous Intensity Matching Ratio	Iv-m			2:1		IF=10mA

BLUE

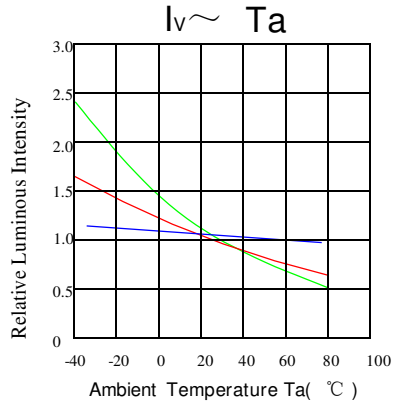
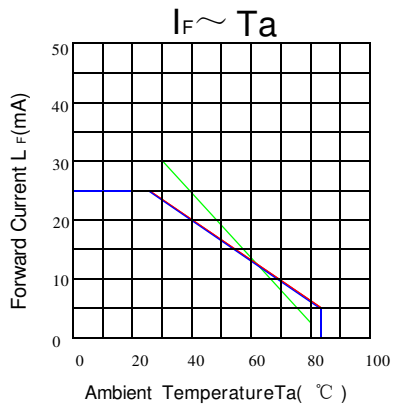
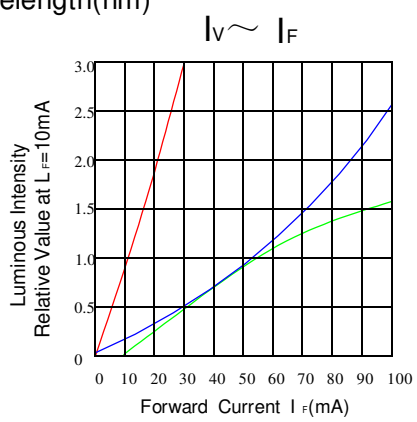
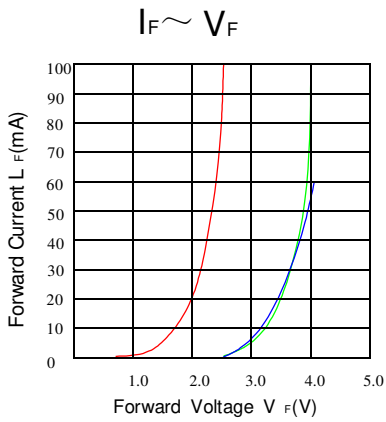
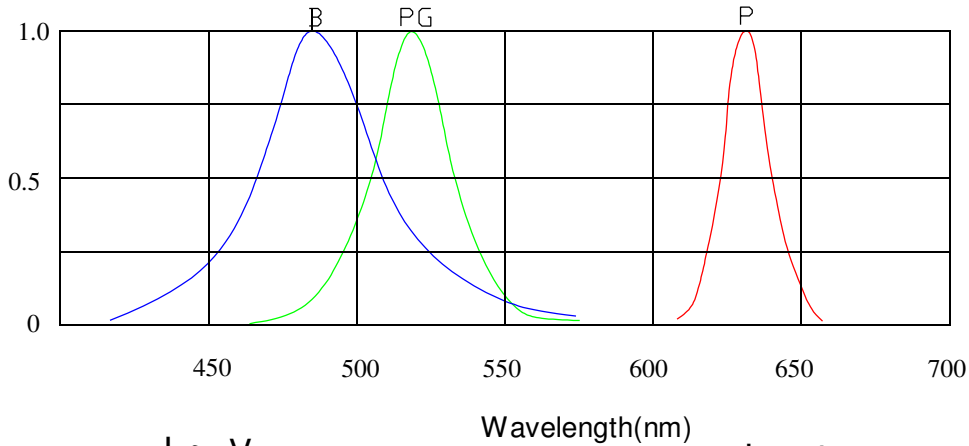
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	Iv	13.7	21.7		mcd	IF=10mA
Peak Emission Wavelength	λ_p		464		nm	IF=5mA
Spectral Line Half-Width	$\Delta\lambda$		22		nm	IF=5mA
Dominant Wavelength	λ_d		470		nm	IF=5mA
Forward Voltage Per Dot	VF		2.95	3.4	V	IF=25mA
Reverse Current Per Dot	IR			100	μ A	VR=5V
Luminous Intensity Matching Ratio	Iv-m			2:1		IF=5mA

Note:Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.

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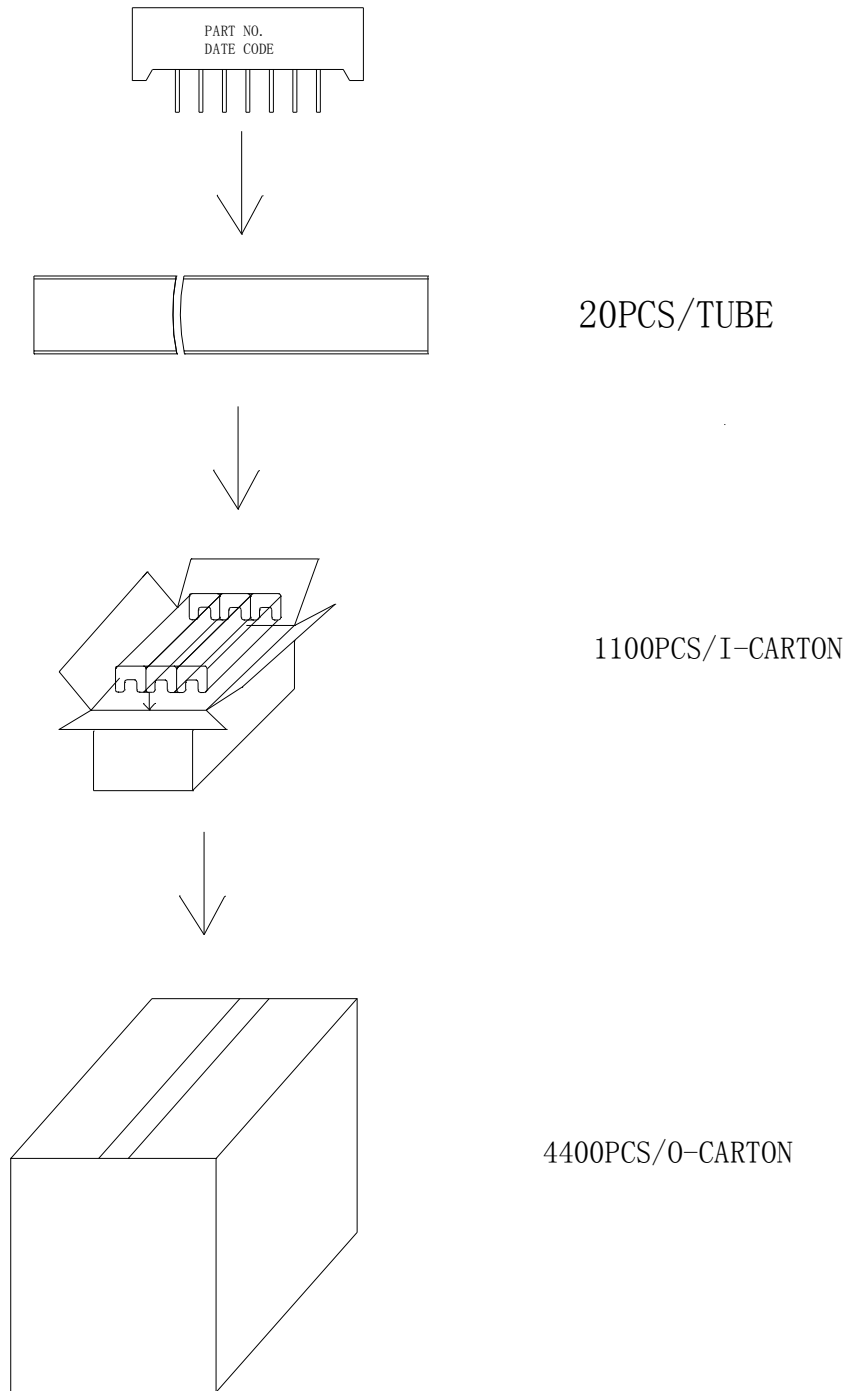
TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES
(25°C Ambient Temperature Unless Otherwise Noted)

RELATIVE INTENSITY vs WAVELENGTH



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Pack process:



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