



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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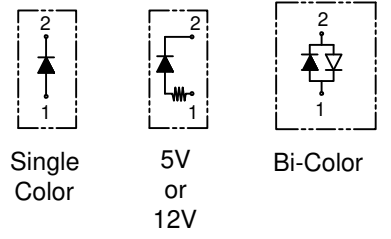
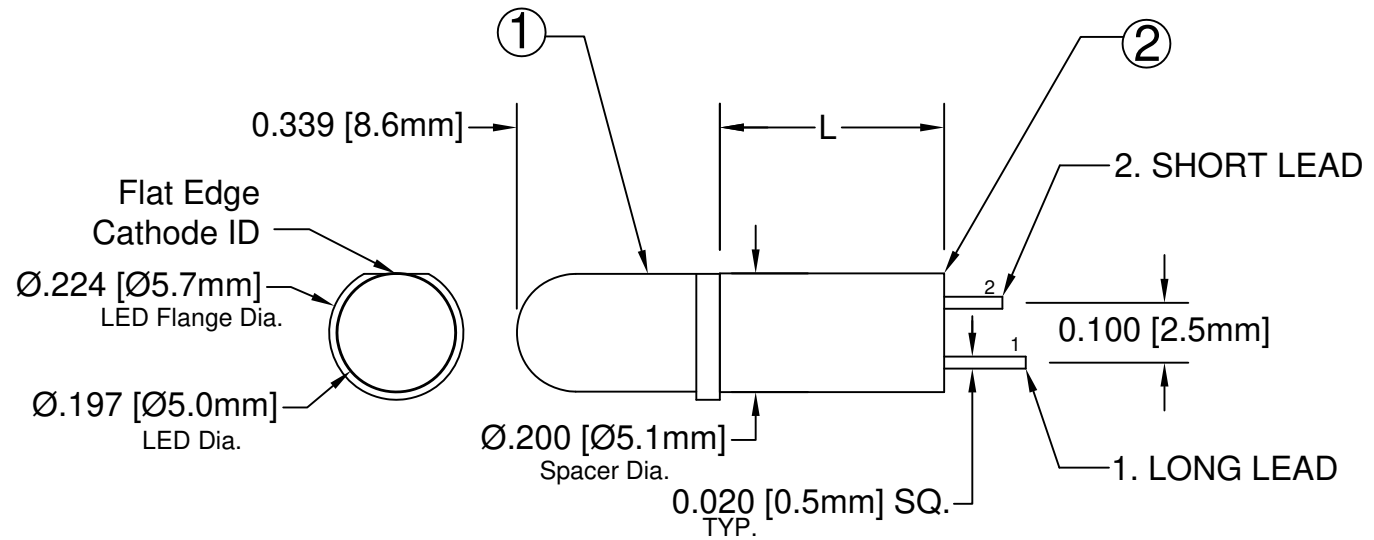
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



ITEM	Q'TY	PART NUMBER	PART DESCRIPTION
1	1	5XX-F	T-1¼ (5mm) Flanged LED, See Pages 2 to 4
2	1	ELM 1-XXX	Extruded, Self-Retaining LED Spacer

REV.	DESCRIPTION	DATE	APPROVED
G	Added P/N Designation Note.	07/22/09	T. Y.
H	Added ELM12205SRDLT.	01/19/11	T. Y.
J	Added Tape & Reel Options.	06/06/11	T. Y.
K	Tape & Reel Design Update.	11/15/11	T. Y.
M	LED Offering List Update.	07/26/12	T. Y.
N	Removed LED Duplication From Offering List.	11/09/12	T. Y.
P	Corrected P/N Typo in BOM.	09/20/13	T. Y.
R	Updated LED Optical Characteristics.	09/12/15	J. C.



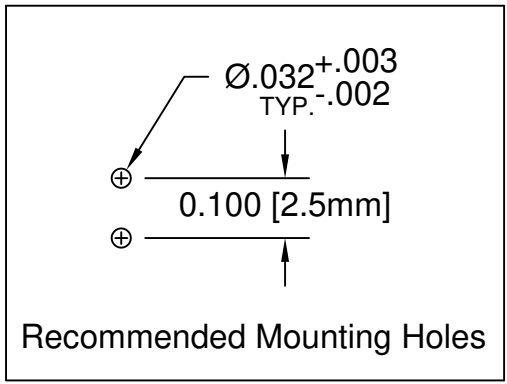
BI-COLOR POLARITY		
LED P/N	(1) Cathode	(2) Cathode
5BC-F	Green	Red
5BC-Y/G-F	Green	Yellow
5BC-R/Y-F	Yellow	Red
5BC-A/G-F	Green	Amber

ELM 1 XXX 5 XX

ELM Series

5mm LED, Emitted Color and Lens Appearance

ELM Spacer Length "L"
-i.e. 0.120" length, use 120
-For metric, use whole number. i.e. 2MM, 10MM



ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

REVERSE VOLTAGE _____ 5V

REVERSE CURRENT _____ 100uA

OPERATING TEMPERATURE RANGE _____ -25° C - 85° C

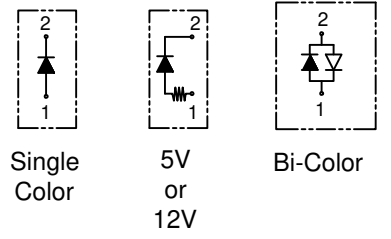
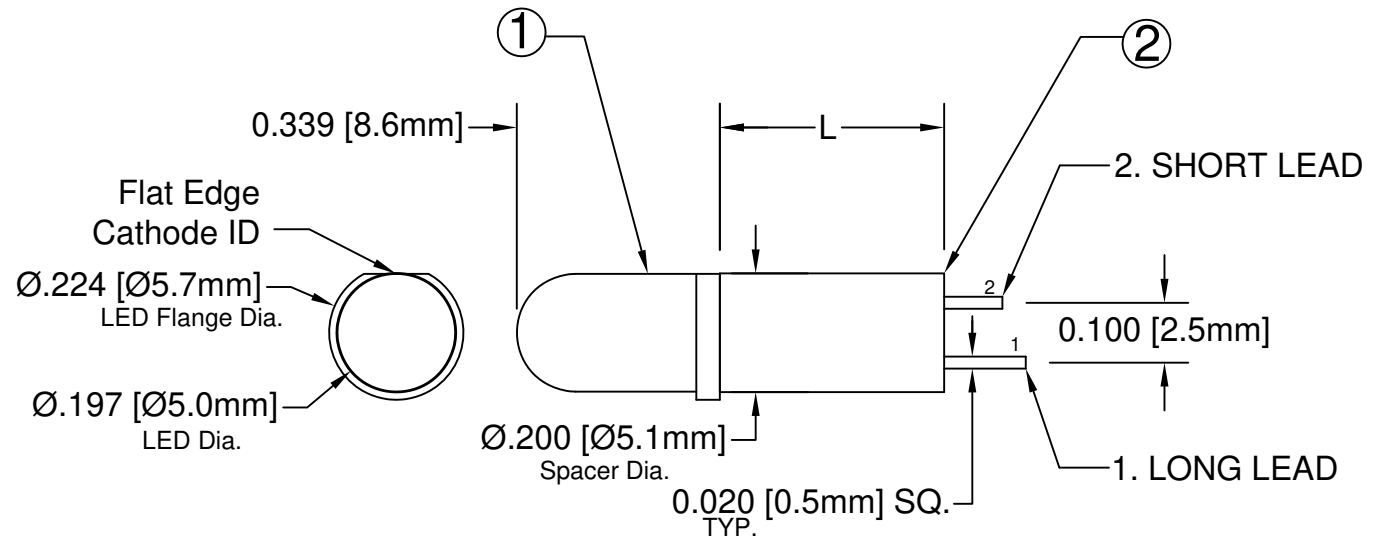
STORAGE TEMPERATURE _____ -30° C - 100° C

LEAD SOLDERING TEMPERATURE(1/16" FROM BODY) _____ 260° C FOR 5 SECONDS

STANDARD TOLERANCE (UNLESS OTHERWISE SPECIFIED)	DECIMALS	ANGULAR	
	.X ± .1	X° ± 1°	
	.XX ± .02		4 THOMAS, IRVINE, CA. 92618
	.XXX ± .010		TEL: (949) 951-8808 FAX: (949) 951-3974
DESIGNED: Minh Doan	DATE: 07/26/12		TITLE: EXTRUDED VERTICAL T-1¼ (5mm) LED NARROW PROFILE ASSY PART NO: ELM1XXX5XX REVISION: R
CHECKED: T. Yin	DATE: 07/26/12		
CAD GENERATED DOCUMENT. DO NOT MEASURE DRAWING.			

ITEM	Q'TY	PART NUMBER	PART DESCRIPTION
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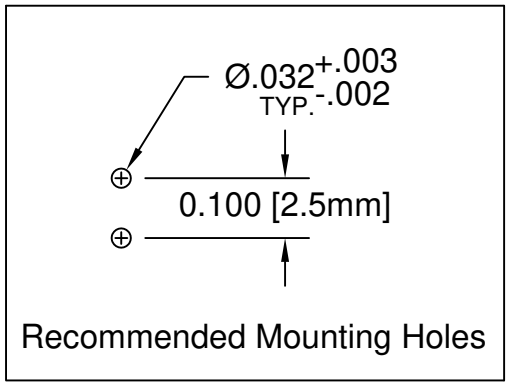
BI-COLOR POLARITY		
LED P/N	(1) Cathode	(2) Cathode
5BC-F	Green	Red
5BC-Y/G-F	Green	Yellow
5BC-R/Y-F	Yellow	Red
5BC-A/G-F	Green	Amber

ELM 1 XXX 5 XX

ELM Series

5mm LED, Emitted Color and Lens Appearance

ELM Spacer Length "L"
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-For metric, use whole number. i.e. 2MM, 10MM



ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

REVERSE VOLTAGE _____ 5V

REVERSE CURRENT _____ 100uA

OPERATING TEMPERATURE RANGE _____ -25° C - 85° C



STORAGE TEMPERATURE _____ -30° C - 100° C

LEAD SOLDERING TEMPERATURE(1/16" FROM BODY) _____ 260° C FOR 5 SECONDS

STANDARD TOLERANCE (UNLESS OTHERWISE SPECIFIED)	DECIMALS	ANGULAR	
	.X ± .1	X° ± 1°	
	.XX ± .02		4 THOMAS, IRVINE, CA. 92618
	.XXX ± .010		TEL: (949) 951-8808 FAX: (949) 951-3974
DESIGNED: Minh Doan	DATE: 07/26/12		TITLE: EXTRUDED VERTICAL T-1¼ (5mm) LED NARROW PROFILE ASSY
CHECKED: T. Yin	DATE: 07/26/12		PART NO: ELM1XXX5XX
		CAGE CODE : 32559 SHEET # 1 OF 5	
CAD GENERATED DOCUMENT. DO NOT MEASURE DRAWING.			


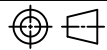
REV.	DESCRIPTION	DATE	APPROVED
	SEE SHEET #1.		

LED Assy. No.	Chip			Lens Appearance	Electro-Optical Data @ 20mA				Viewing Angle 2θ ½ (Deg)	LED P/N	
	Material	Peak Wave Length	Emitted Color		If (mA)	Vf (V)		Iv (mcd)			
						MAX	TYP	MAX			TYP
ELM1XXX5BWC	GaN/SiC	430	BLUE	WATER CLEAR	25	4	4.5	25	20	5BWC-F	
ELM1XXX5BWD	GaN/SiC	430	BLUE	DIFFUSED	25	4	4.5	15	45	5BWD-F	
ELM1XXX5BWT	GaN/SiC	430	BLUE	TINTED	25	4	4.5	30	20	5BWT-F	
ELM1XXX5GC	GaP/GaP	568	GREEN	WATER CLEAR	30	2.1	2.8	40	35	5GC-F	
ELM1XXX5GD	GaP/GaP	568	GREEN	DIFFUSED	30	2.1	2.8	25	45	5GD-F	
ELM1XXX5GT	GaP/GaP	568	GREEN	TINTED	30	2.1	2.8	40	35	5GT-F	
ELM1XXX5PGC	GaP/GaP	555	PURE GREEN	WATER CLEAR	30	2.2	2.8	10	35	5PGC-F	
ELM1XXX5PGD	GaP/GaP	555	PURE GREEN	DIFFUSED	30	2.2	2.8	10	45	5PGD-F	
ELM1XXX5PGT	GaP/GaP	555	PURE GREEN	TINTED	30	2.2	2.8	10	35	5PGT-F	
ELM1XXX5YC	GaAsP/GaP	590	YELLOW	WATER CLEAR	30	2	2.8	40	35	5YC-F	
ELM1XXX5YD	GaAsP/GaP	590	YELLOW	DIFFUSED	30	2	2.8	25	45	5YD-F	
ELM1XXX5YT	GaAsP/GaP	590	YELLOW	TINTED	30	2	2.8	40	35	5YT-F	
ELM1XXX5AC	GaAsP/GaP	605	AMBER	WATER CLEAR	30	2	2.8	40	35	5AC-F	
ELM1XXX5AD	GaAsP/GaP	605	AMBER	DIFFUSED	30	2	2.8	25	45	5AD-F	
ELM1XXX5AT	GaAsP/GaP	605	AMBER	TINTED	30	2	2.8	40	35	5AT-F	
ELM1XXX5HC	GaAsP/GaP	625	HE RED	WATER CLEAR	30	2	2.8	40	35	5HC-F	
ELM1XXX5HD	GaAsP/GaP	625	HE RED	DIFFUSED	30	2	2.8	25	45	5HD-F	
ELM1XXX5HT	GaAsP/GaP	625	HE RED	TINTED	30	2	2.8	40	35	5HT-F	
ELM1XXX5RC	GaP/GaP	700	RED	WATER CLEAR	20	2.1	2.8	2	35	5RC-F	
ELM1XXX5RD	GaP/GaP	700	RED	DIFFUSED	20	2.1	2.8	2	45	5RD-F	
ELM1XXX5RT	GaP/GaP	700	RED	TINTED	20	2.1	2.8	2	35	5RT-F	
ELM1XXX5BC-A/G	GaAsP/GaP	605	AMBER	WHITE DIFFUSED	30	2.0	2.8	6	45	5BC-A/G-F	
	GaP/GaP	568	GREEN		30	2.1	2.8	6			
ELM1XXX5BC	GaAsP/GaP	625	RED	WHITE DIFFUSED	30	2.0	2.8	6	45	5BC-F	
	GaP/GaP	568	GREEN		30	2.1	2.8	8			
ELM1XXX5BC-R/Y	GaAsP/GaP	625	RED	WHITE DIFFUSED	30	2.0	2.8	6	45	5BC-R/Y-F	
	GaAsP/GaP	590	YELLOW		30	2.0	2.8	5			
ELM1XXX5BC-Y/G	GaAsP/GaP	590	YELLOW	WHITE DIFFUSED	30	2.0	2.8	5	45	5BC-Y/G-F	
	GaP/GaP	568	GREEN		30	2.1	2.8	8			

STANDARD TOLERANCE (UNLESS OTHERWISE SPECIFIED) ±10% ALL VALUES ANGULAR X° ± 5°		 BIVAR [®] 4 THOMAS, IRVINE, CA. 92618 TEL: (949) 951-8808 FAX: (949) 951-3974	
			
DESIGNED: Minh Doan	DATE: 07/26/12	PART NO: ELM1XXX5XX	
CHECKED: T. Yin	DATE: 07/26/12	CAGE CODE : 32559	SHEET # 2 OF 5
CAD GENERATED DOCUMENT. DO NOT MEASURE DRAWING.			

REV.	DESCRIPTION	DATE	APPROVED
	SEE SHEET #1.		


LED Assy. No.	Chip			Lens Appearance	Electro-Optical Data @ 20mA				Viewing Angle 2θ ½ (Deg)	LED P/N
	Material	Peak Wave Length	Emitted Color		If (mA)	Vf (V)		Iv (mcd)		
					MAX	TYP	MAX	TYP		
EML1XXX5UBWC	InGaN/SiC	468	BLUE	WATER CLEAR	50	3.2	3.6	8000	15	5BWC2.515F
ELM1XXX5SGC	GaP/GaP	568	GREEN	WATER CLEAR	30	2.1	2.8	60	35	5SGC-F
ELM1XXX5SGD	GaP/GaP	568	GREEN	DIFFUSED	30	2.1	2.8	50	40	5SGD-F
ELM1XXX5SGT	GaP/GaP	568	GREEN	TINTED	30	2.1	2.8	60	35	5SGT-F
ELM1XXX5SYC	GaAsP/GaP	590	YELLOW	WATER CLEAR	30	2.0	2.8	600	35	5SYC-F
ELM1XXX5SYD	GaAsP/GaP	590	YELLOW	DIFFUSED	30	2.0	2.8	150	40	5SYD-F
ELM1XXX5SYT	GaAsP/GaP	590	YELLOW	TINTED	30	2.0	2.8	600	35	5SYT-F
ELM1XXX5SRC	GaAlAs/GaAs	645	SUPER RED	WATER CLEAR	30	1.7	2.4	60	35	5SRC-F
ELM1XXX5SRD	GaAlAs/GaAs	645	SUPER RED	DIFFUSED	30	1.7	2.4	40	40	5SRD-F
ELM1XXX5SRT	GaAlAs/GaAs	645	SUPER RED	TINTED	30	1.7	2.4	60	35	5SRT-F
ELM1XXX5UGC	AlGaInP	570	GREEN	WATER CLEAR	30	2.1	2.4	400	35	5UGC-F
ELM1XXX5UGC	AlGaInP	570	GREEN	WATER CLEAR	30	2.1	2.4	300	35	5SUGC-F
ELM1XXX5UYC	AlGaInP	590	YELLOW	WATER CLEAR	30	2.0	2.4	1000	30	5UYC-F
ELM1XXX5SUYC	AlGaInP	590	YELLOW	WATER CLEAR	30	2.0	2.4	700	35	5SUYC-F
ELM1XXX5UUYC	AlGaInP	590	YELLOW	WATER CLEAR	30	2.0	2.4	500	35	5UUYC-F
ELM1XXX5UOC	AlGaInP	625	ORANGE	WATER CLEAR	30	1.8	2.4	1400	35	5UOC-F
ELM1XXX5UOC	AlGaInP	625	ORANGE	WATER CLEAR	30	1.8	2.4	1300	35	5SUOC-F
ELM1XXX5URC	GaAlAs/GaAs	645	RED	WATER CLEAR	30	1.7	2.4	400	30	5URC-F
ELM1XXX5SURC	AlGaInP	640	RED	WATER CLEAR	30	1.8	2.4	500	35	5SURC-F
ELM1XXX5UWC	InGaN/SiC	6500K	WHITE	WATER CLEAR	100	3.5	4.2	2700	30	5WC2.730F

STANDARD TOLERANCE (UNLESS OTHERWISE SPECIFIED) ±10% ALL VALUES ANGULAR X° ± 5°		 4 THOMAS, IRVINE, CA. 92618 TEL: (949) 951-8808 FAX: (949) 951-3974	
DESIGNED: Minh Doan		DATE: 07/26/12	 TITLE: EXTRUDED VERTICAL T-1¼ (5mm) LED NARROW PROFILE ASSY
CHECKED: T. Yin		DATE: 07/26/12	PART NO: ELM1XXX5XX REVISION: R
		CAGE CODE : 32559	SHEET # 3 OF 5
CAD GENERATED DOCUMENT. DO NOT MEASURE DRAWING.			

REV.	DESCRIPTION	DATE	APPROVED
	SEE SHEET #1.		

LED Assy. No.	Peak Wave Length λ_p (nm)	Emitted Color	Lens Appearance	Max. Rating	Electro-Optical Data @ 2mA			Viewing Angle $2\theta_{1/2}$ (Deg)	LED P/N
				lf (mA)	Vf (V)		lv (mcd)		
				MAX	TYP	MAX	TYP		
ELM1XXX5BWDL	430	BLUE	DIFFUSED	7	3.8	4.2	4	40	5BWDL-F
ELM1XXX5PGDL	555	PURE GREEN	DIFFUSED	7	2.1	2.6	1	40	5PGDL-F
ELM1XXX5GDL	568	GREEN	DIFFUSED	7	2.1	2.6	4	40	5GDL-F
ELM1XXX5YDL	590	YELLOW	DIFFUSED	7	2.0	2.6	4	40	5YDL-F
ELM1XXX5ADL	605	AMBER	DIFFUSED	7	2.0	2.6	4	40	5ADL-F
ELM1XXX5HDL	625	HE RED	DIFFUSED	7	2.0	2.6	5	40	5HDL-F
ELM1XXX5SRDL	645	SUPER RED	DIFFUSED	7	1.7	2.3	6	40	5SRDL-F

LED Assy. No.	Peak Wave Length λ_p (nm)	Emitted Color	Lens Appearance	Electro-Optical Data				Viewing Angle $2\theta_{1/2}$ (Deg)	LED P/N
				lf (mA)	Vf (V)		lv (mcd)		
				MAX	TYP	MAX	TYP		
5 Volt				Data @ 5V					
ELM1XXX5BWD5V	BLUE	430	DIFFUSED	-	-	5	15	40	5BWD5V-F
ELM1XXX5GC5V	GREEN	568	WATER CLEAR	-	-	5	40	40	5GC5V-F
ELM1XXX5GD5V	GREEN	568	DIFFUSED	-	-	5	25	40	5GD5V-F
ELM1XXX5GT5V	GREEN	568	TINTED	-	-	5	40	40	5GT5V-F
ELM1XXX5AD5V	AMBER	605	DIFFUSED	-	-	5	25	40	5AD5V-F
ELM1XXX5HD5V	HE RED	625	DIFFUSED	-	-	5	30	40	5HD5V-F
ELM1XXX5RD5V	RED	700	DIFFUSED	-	-	5	1.5	40	5RD5V-F
ELM1XXX5YD5V	YELLOW	590	DIFFUSED	-	-	5	25	40	5YD5V-F
12 Volt				Data @ 12V					
ELM1XXX5GC12V	GREEN	568	WATER CLEAR	-	-	12	40	35	5GC12V-F
ELM1XXX5GD12V	GREEN	568	DIFFUSED	-	-	12	25	40	5GD12V-F
ELM1XXX5HC12V	HE RED	625	WATER CLEAR	-	-	12	50	35	5HC12V-F
ELM1XXX5HD12V	HE RED	625	DIFFUSED	-	-	12	30	40	5HD12V-F
ELM1XXX5RC12V	RED	700	WATER CLEAR	-	-	12	2	35	5RC12V-F
ELM1XXX5RD12V	RED	700	DIFFUSED	-	-	12	1.5	40	5RD12V-F
ELM1XXX5YC12V	YELLOW	590	WATER CLEAR	-	-	12	25	35	5YC12V-F
ELM1XXX5YD12V	YELLOW	590	DIFFUSED	-	-	12	20	40	5YD12V-F

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CHECKED: T. Yin		DATE: 07/26/12		PART NO: ELM1XXX5XX REVISION: R	
				CAGE CODE : 32559 SHEET # 4 OF 5 CAD GENERATED DOCUMENT. DO NOT MEASURE DRAWING.	

