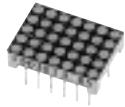


Dot Matrix LED

■ General Description

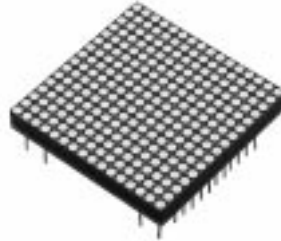
Sharp's dot matrix LEDs can express characters and symbols on a display.
 (Number of dots: 5X7, 8X8, 16X16). We can supply wide color variation;
 high-luminosity red T series, yellow-green E series, sunset orange S series,
 dichromatic emission, etc.



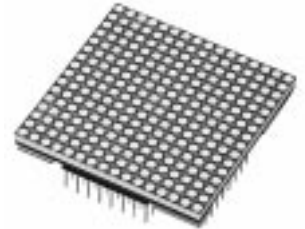
LT5038T



LT5017ED



LT5040ET



LT5016ED

■ Dot Matrix LED

Number of dots	Outline dimensions (mm)	Common pins	Radiation color					Outline dimensions			
			T Red (High-luminosity)	D Red	S Sunset orange	E Yellow-green	E T Yellow-green+ Red (High-luminosity)	E D Yellow green + Red	Page	Figure	
5X7	12.7X17.8	K	LT5038T							1	
		A	LT5037T								
8X8	20X20	K						LT5017ED	→	2 3	
		A	LT5010T	LT5010D				LT5027ED			
		K									
	30.2X30.2	K		LT5105D		LT5105E					4
		A		LT5106D	LT5106S	LT5106E					
		K									
31.8X31.8	K						LT5007ED	→	5 5/6		
	A		LT5008D		LT5008E		LT5008ED				
16X16	31.9X31.9	K	LT5013T						→	7	
		A		LT5014D	LT5014S	LT5014E					
		K					LT5040ET				
	40X40	K		LT5005D	LT5005S	LT5005E			→	8 9 10 11 12	
		A	LT5005T								
		K					LT5050ET				
		A									
	64X64	A						LT5016ED			
	96X96	A						LT5026ED			

*1 Common pins show row.(Column row)

Dot Matrix LED

Absolute Maximum Ratings Figures shown below are values per dot.

(Ta=25°C)

Number of dots	Outline dimensions (mm)	Radiation color	Model No.		Forward current I _F (mA)	Peak forward current I _{FM} (mA)	Derating factor (mA/°C) Pulse	Reverse voltage V _R (V)	Operating temperature T _{opr.} (°C)	Storage temperature T _{stg.} (°C)
			Anode common*1	Cathode common*1						
5X7	12.7X17.8	Red(High-luminosity)	LT5037T	LT5038T	15	50 ^{*3}	1.45	5	-20 to +60	-20 to +80
8X8	20X20	Yellow-green/Red		LT5017ED	15	50 ^{*3}	0.91	5	-20 to +60	-20 to +80
		Yellow-green/Red		LT5027ED	15	50 ^{*3}	0.91	5	-20 to +60	-20 to +80
	30.2X30.2	Red(High-luminosity)	LT5010T		15	50 ^{*3}	0.91	5	-20 to +60	-20 to +70
		Red	LT5010D		15	50 ^{*3}	0.91	5	-20 to +60	-20 to +80
		Red	LT5106D	LT5105D	20	50 ^{*3}	0.91	5	-20 to +70	-20 to +80
		Sunset orange	LT5106S		20	50 ^{*3}	0.91	5	-20 to +70	-20 to +80
	31.8X31.8	Yellow-green	LT5106E	LT5105E	20	50 ^{*3}	0.91	5	-20 to +60	-20 to +80
		Yellow-green/Red	LT5008ED	LT5007ED	15	50 ^{*3}	0.91	5	-20 to +60	-20 to +80
		Red	LT5008D		15	50 ^{*3}	0.91	5	-20 to +60	-20 to +80
		Yellow-green	LT5008E		15	50 ^{*3}	0.91	5	-20 to +60	-20 to +80
16X16	31.9X31.9	Red(High-luminosity)		LT5013T	15	80 ^{*3}	1.45	5	-20 to +60	-20 to +80
		Red	LT5014D		15	80 ^{*3}	1.45	5	-20 to +60	-20 to +80
		Sunset orange	LT5014S		15	80 ^{*3}	1.45	5	-20 to +60	-20 to +80
		Yellow-green	LT5014E		15	80 ^{*3}	1.45	5	-20 to +60	-20 to +80
	31.7X31.7	Yellow-green/Red(High-luminosity)	LT5040ET		15	50 ^{*3}	1.45	5	-20 to +60	-20 to +80
		Red(High-luminosity)	LT5005T		15	80 ^{*3}	1.45	5	-20 to +60	-20 to +80
	40X40	Red		LT5005D	15	80 ^{*3}	1.45	5	-20 to +60	-20 to +80
		Sunset orange		LT5005S	15	80 ^{*3}	1.45	5	-20 to +60	-20 to +80
		Yellow-green		LT5005E	15	80 ^{*3}	1.45	5	-20 to +60	-20 to +80
		Yellow-green/Red(High-luminosity)	LT5050ET		15/15	50/50 ^{*3}	1.45/1.45	5/5	-20 to +60	-20 to +80
	64X64	Yellow-green/Red	LT5016ED		15	80 ^{*3}	1.45	5	-20 to +60	-20 to +80
	96X96	Yellow-green/Red	LT5026ED		15	80 ^{*3}	1.45	5	-20 to +60	-20 to +80

*1 Common pins show row.(Column row) *2 Duty ratio=1/10, Pulse width=0.1ms

*3 Duty ratio=1/16, pulse width=0.1ms

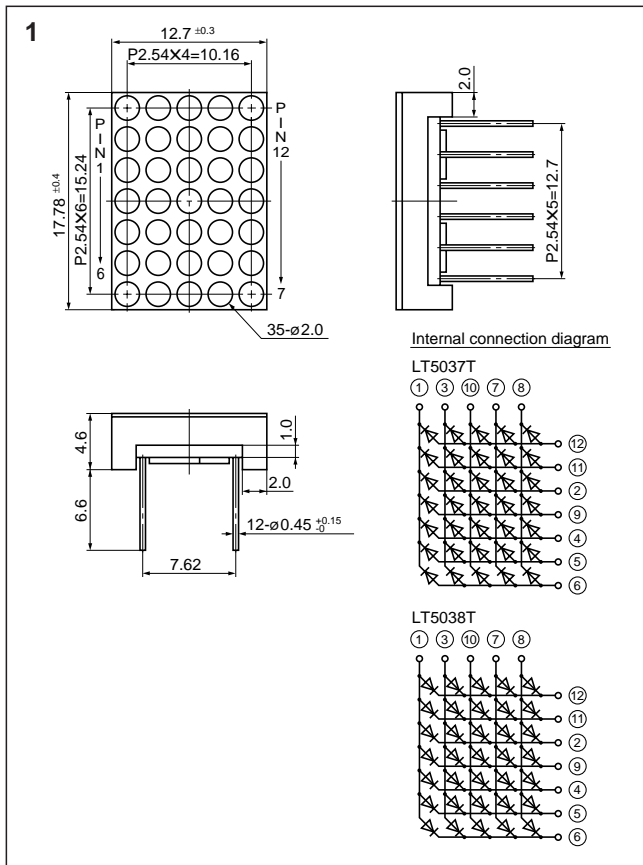
Electro-optical Characteristics Figures shown below are values per dot.

(Ta=25°C)

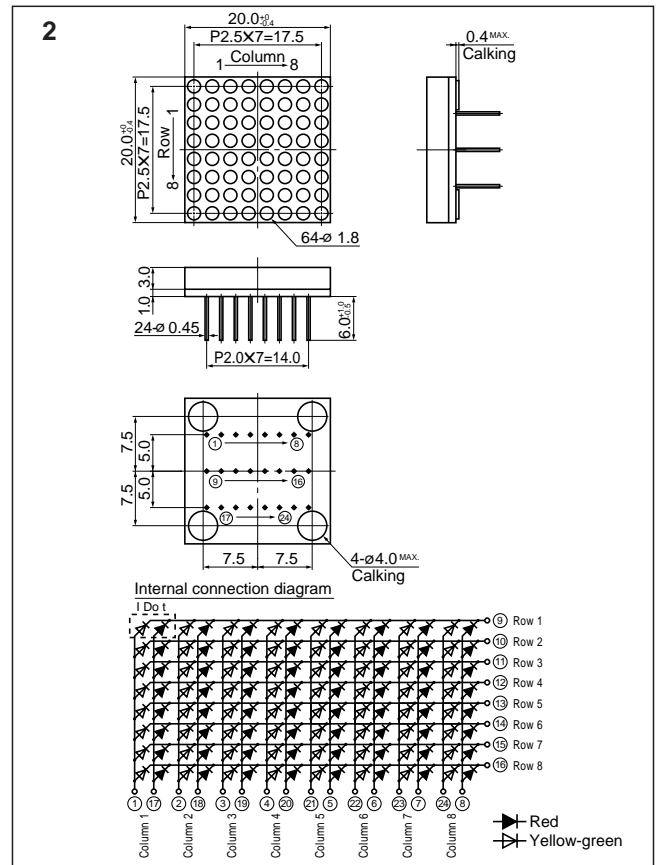
Number of dots	Outline dimensions (mm)	Radiation color	Model No.		Forward voltage ^{*2} V _F (V)		Luminous intensity ^{*3} I _v (mcd) TYP.	Peak emission wavelength λ _p (nm) TYP.	Spectrum radiation bandwidth Δλ(nm) TYP.		Reverse current I _R (μA) MAX. V _R (V)	
			Anode common*1	Cathode common*1	TYP.	MAX.			I _F (mA)	I _R (μA) MAX.	V _R (V)	
5X7	12.7X17.8	Red(High-luminosity)	LT5037T	LT5038T	1.85	3.0	(4.5)	660	20	50	100	4
8X8	20X20	Yellow-green/Red*		LT5017ED	2.4/2.2	3.0	1.9/1.6	565/635	30/35	50	10	4
		Yellow-green/Red*		LT5027ED	2.4/2.2	3.0	2.5/2.0	565/635	30/35	50	10	4
	30.2X30.2	Red(High-luminosity)	LT5010T		1.85	2.3	2.2	660	20	50	10	4
		Red	LT5010D		2.2	2.7	1.11	635	35	50	10	4
		Red	LT5106D	LT5105D	2.2	2.7	1.11	635	35	10	10	4
		Sunset orange	LT5106S		2.2	2.7	1.11	610	35	10	10	4
	31.8X31.8	Yellow-green	LT5106E	LT5105E	2.4	2.7	1.69	565	30	10	10	4
		Yellow-green/Red*	LT5008ED	LT5007ED	2.4/2.2	3.0/2.7	2.08/1.56	565/635	30/35	50	10	4
		Red	LT5008D		2.2	3.0	2.03	635	35	50	10	4
		Yellow-green	LT5008E		2.4	3.0	2.7	565	30	50	10	4
16X16	31.9X31.9	Red(High-luminosity)		LT5013T	1.85	3.0	1.35	660	20	50	10	4
		Red	LT5014D		2.2	3.0	1.3	635	50	35	10	4
		Sunset orange	LT5014S		2.2	3.0	1.11	610	35	50	10	4
		Yellow-green	LT5014E		2.4	3.0	1.7	565	30	50	10	4
	31.7X31.7	Yellow-green/Red(High-luminosity)*	LT5040ET		2.4/1.85	3.0	1.45/1.70	565/660	30/20	50	100	3
		Red(High-luminosity)	LT5005T		1.85	3.0	1.78	660	20	50	10	4
	40X40	Red		LT5005D	2.2	2.7	1.04	635	35	50	10	4
		Sunset orange		LT5005S	2.2	2.7	1.11	610	35	50	10	4
		Yellow-green		LT5005E	2.4	3.0	1.3	565	30	50	10	4
		Yellow-green/Red(High-luminosity)*	LT5050ET		2.4/1.85	3.0	(1.9)/(3.0)	565/660	30/20	10	100	3
	64X64	Yellow-green/Red*	LT5016ED		2.4/2.2	3.0	5.2/3.9	565/635	30/35	50	10	4
	96X96	Yellow-green/Red*	LT5026ED		2.4/2.2	3.0	7.15/5.85	565/635	30/35	50	10	4

* Each figure shown in the table is yellow-green/red. *1 Common pins show row.(Column row) *2 I_{FM}=50mA *3 I_F=10mA

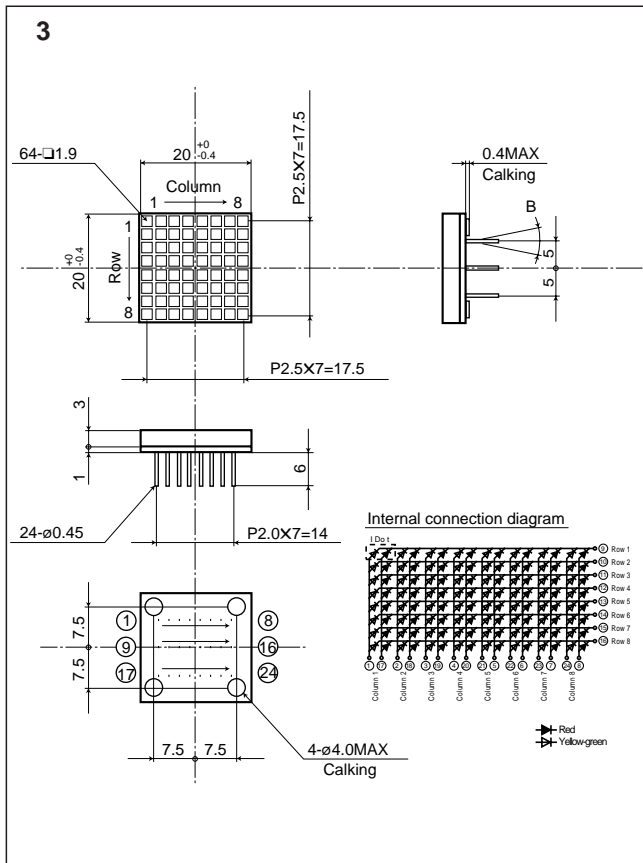
Dot Matrix LED Outline Dimensions(Unit:mm)



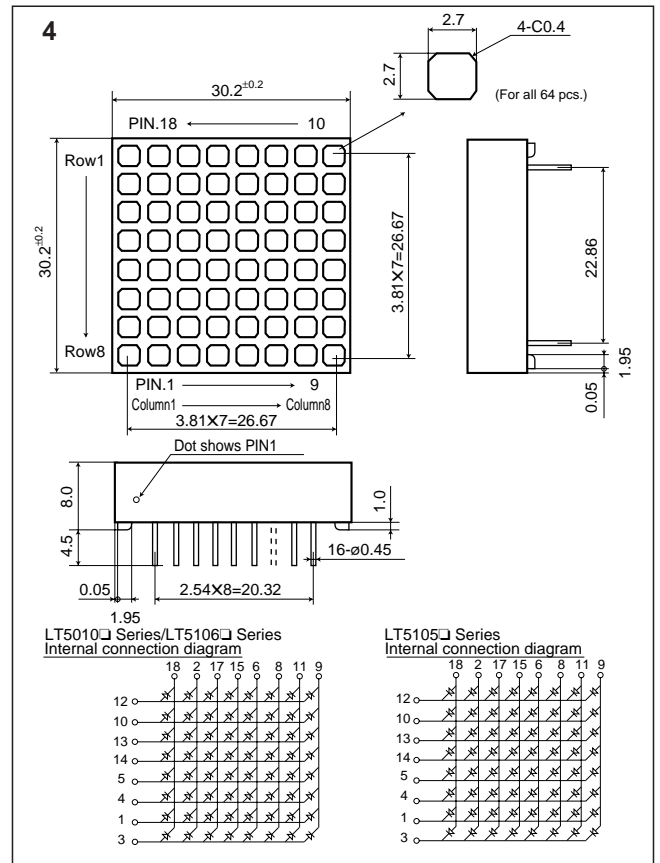
LT5037T/LT5038T



LT5017ED



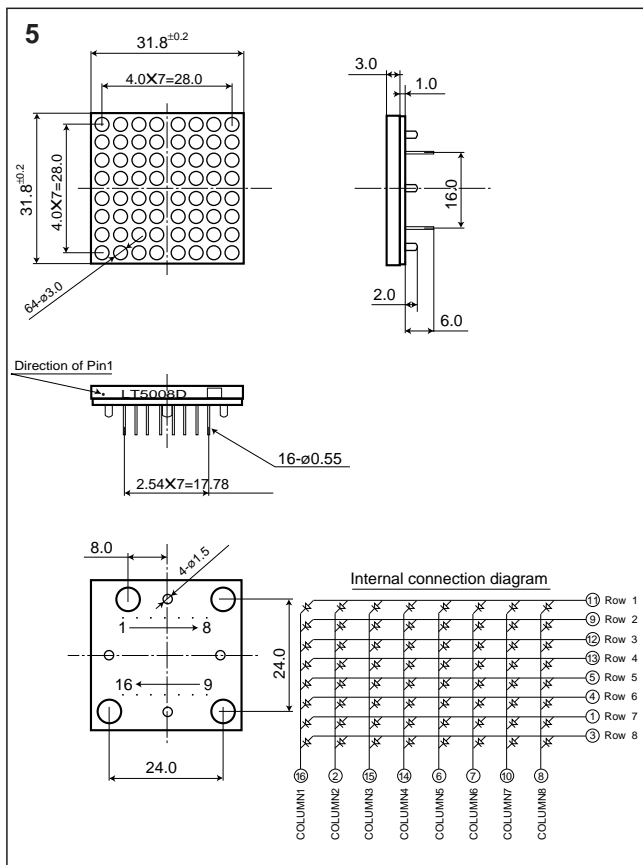
LT5027ED



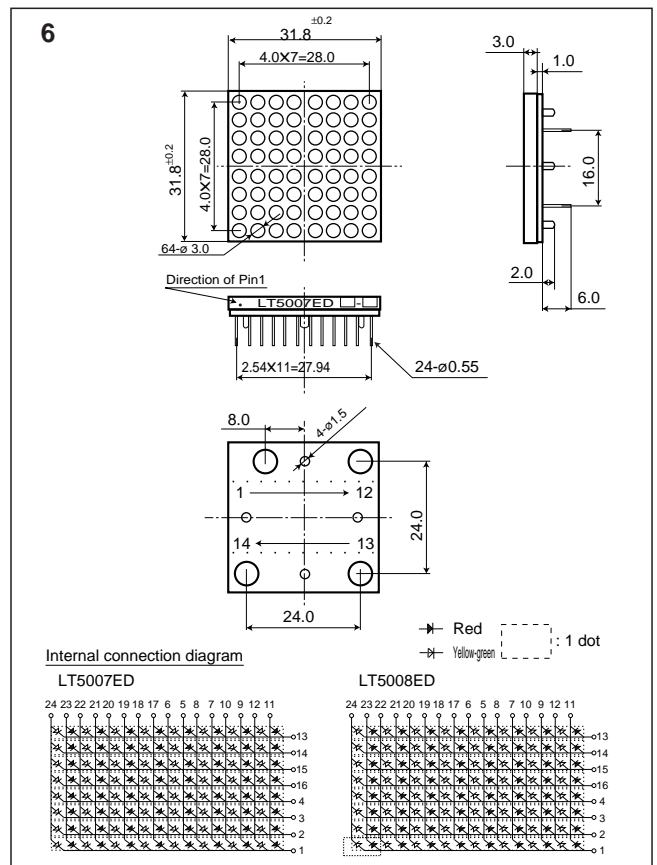
LT5010 Series LT5105 Series/LT5106 Series

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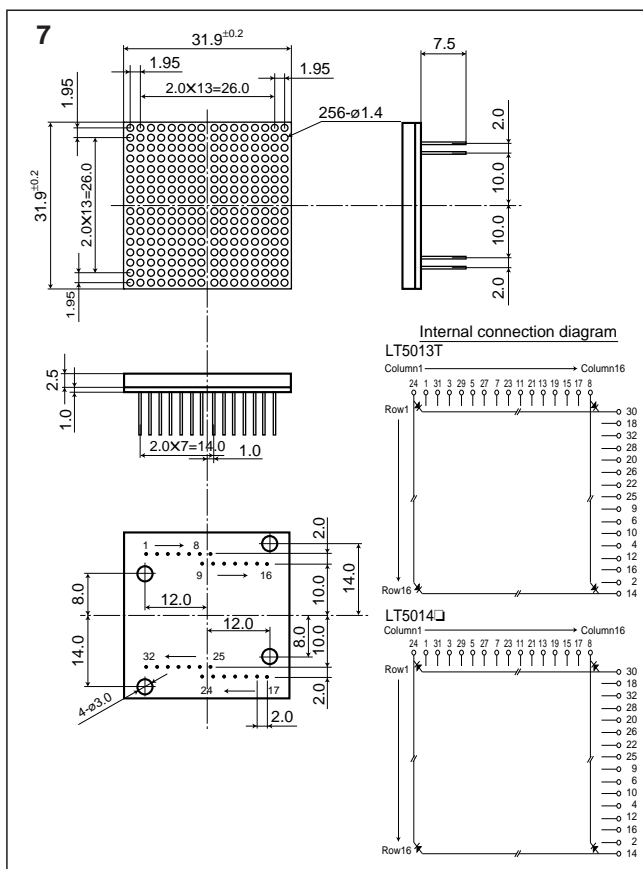
Dot Matrix LED Outline Dimensions(Unit:mm)



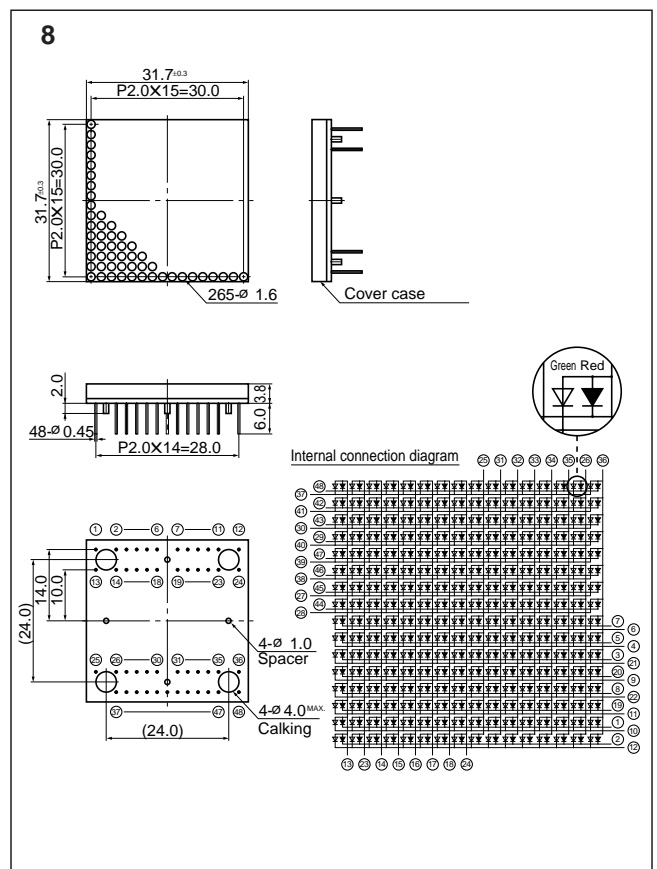
LT5008□ Series



LT5007ED/LT5008ED

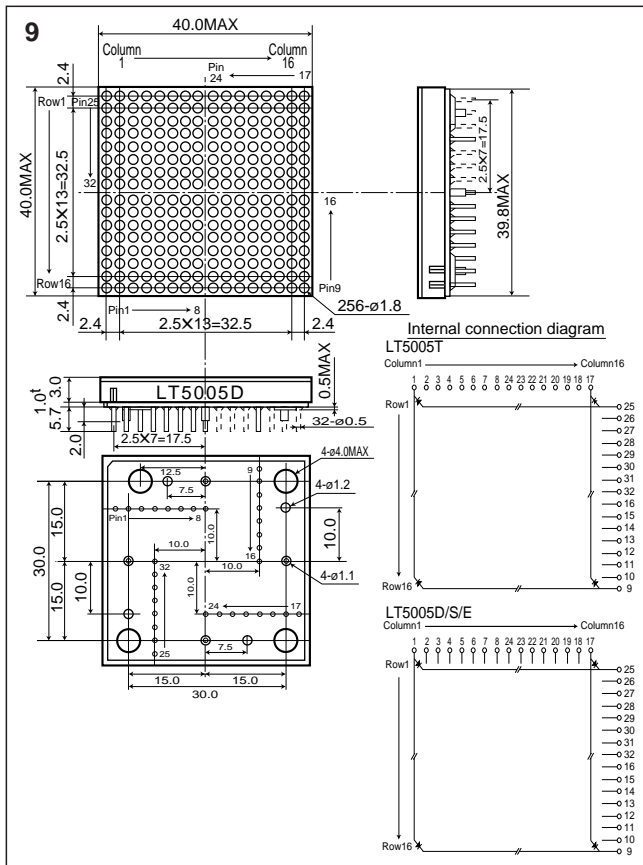


LT5013T/LT5014□ Series

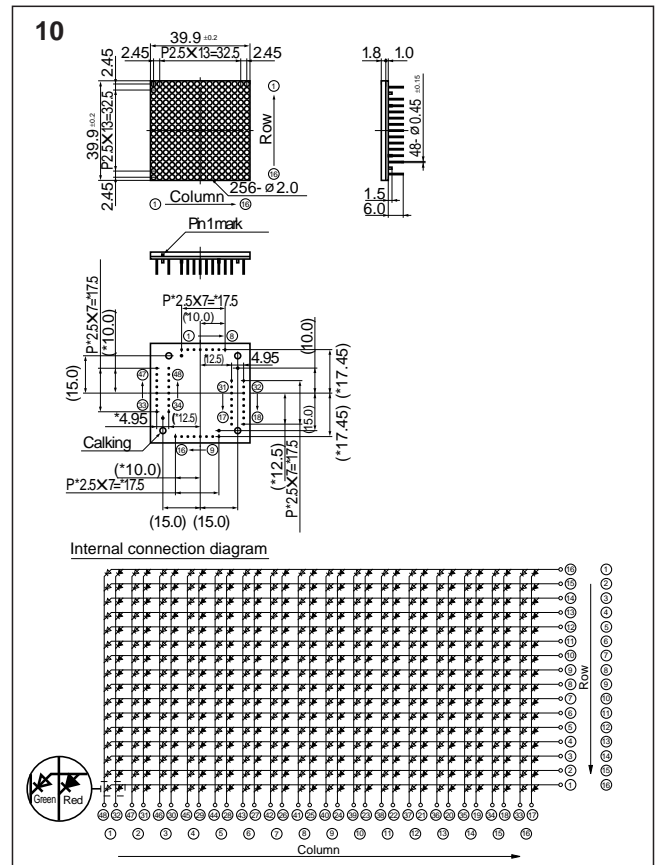


LT5040ET

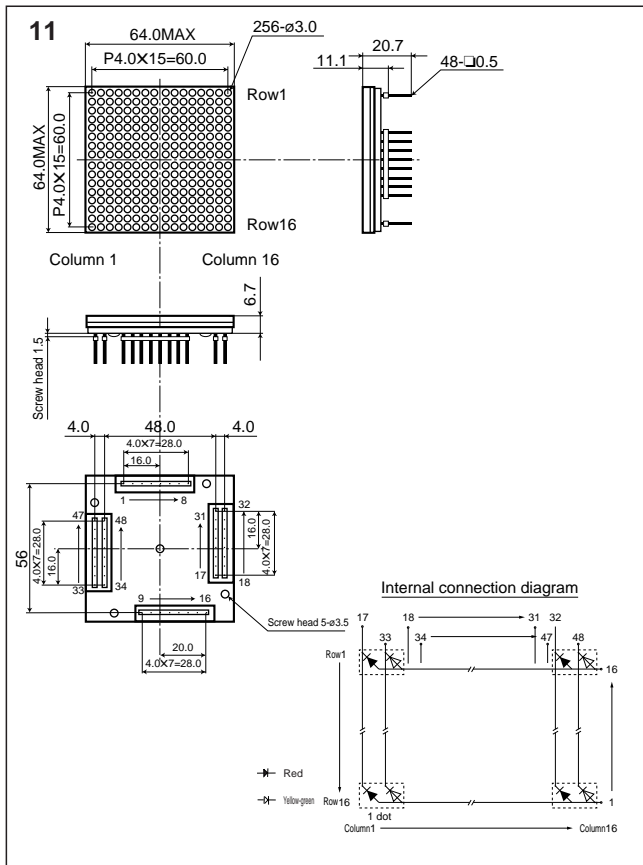
Dot Matrix LED Outline Dimensions(Unit:mm)



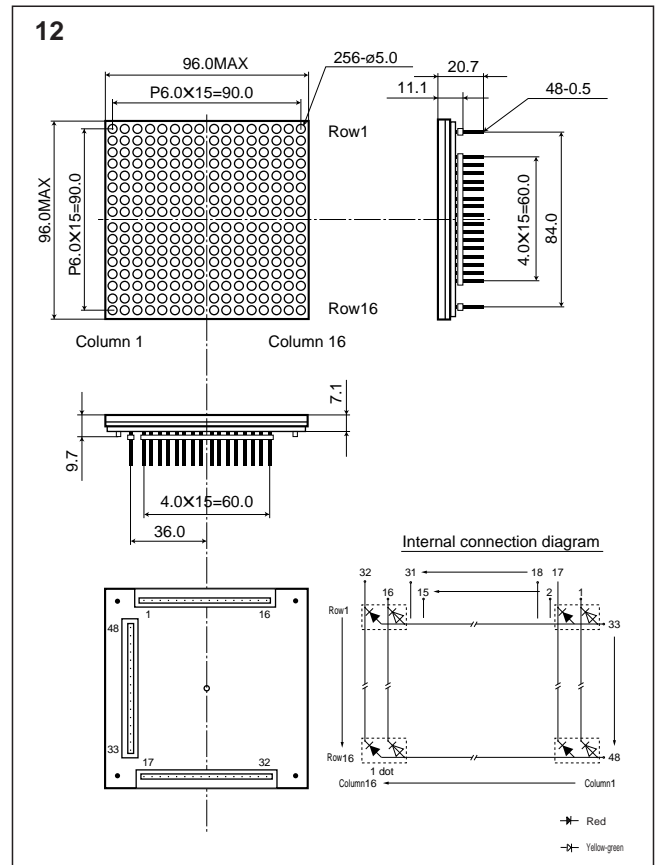
LT5005□ Series



LT5050ET



LT5016ED



LT5026ED

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