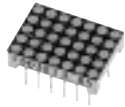


# Dot Matrix LED

## ■ General Description

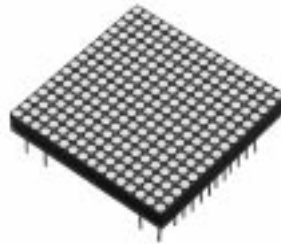
Sharp's dot matrix LEDs can express characters and symbols on a display.  
 (Number of dots: 5X7, 8X8, 16X16). We can supply wide color variation;  
 high-luminosity red T series, yellow-green E series, sunset orange S series,  
 dichromatic emission, etc.



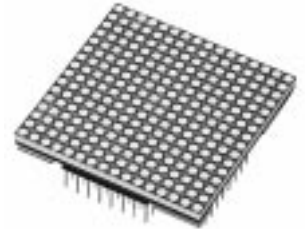
LT5038T



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
		K						LT5027ED		
		A	LT5010T	LT5010D						
	30.2X30.2	K		LT5105D			LT5105E			4
		A		LT5106D	LT5106S	LT5106E				
		A								
31.8X31.8	K						LT5007ED	→	5 5/6	
	A		LT5008D			LT5008E	LT5008ED			
16X16	31.9X31.9	K	LT5013T						→	7
		A		LT5014D	LT5014S	LT5014E				
		A					LT5040ET			
	40X40	K		LT5005D	LT5005S	LT5005E			→	8 9 10 11
		A	LT5005T							
		A					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 <sub>F</sub> (mA)	Peak forward current I <sub>FM</sub> (mA)	Derating factor (mA/°C) Pulse	Reverse voltage V <sub>R</sub> (V)	Operating temperature T <sub>opr.</sub> (°C)	Storage temperature T <sub>stg.</sub> (°C)
			Anode common*1	Cathode common*1						
5X7	12.7X17.8	Red(High-luminosity)	LT5037T	LT5038T	15	50 <sup>*3</sup>	1.45	5	-20 to +60	-20 to +80
8X8	20X20	Yellow-green/Red		LT5017ED	15	50 <sup>*3</sup>	0.91	5	-20 to +60	-20 to +80
		Yellow-green/Red		LT5027ED	15	50 <sup>*3</sup>	0.91	5	-20 to +60	-20 to +80
	30.2X30.2	Red(High-luminosity)	LT5010T		15	50 <sup>*3</sup>	0.91	5	-20 to +60	-20 to +70
		Red	LT5010D		15	50 <sup>*3</sup>	0.91	5	-20 to +60	-20 to +80
		Red	LT5106D	LT5105D	20	50 <sup>*3</sup>	0.91	5	-20 to +70	-20 to +80
		Sunset orange	LT5106S		20	50 <sup>*3</sup>	0.91	5	-20 to +70	-20 to +80
	31.8X31.8	Yellow-green	LT5106E	LT5105E	20	50 <sup>*3</sup>	0.91	5	-20 to +60	-20 to +80
		Yellow-green/Red	LT5008ED	LT5007ED	15	50 <sup>*3</sup>	0.91	5	-20 to +60	-20 to +80
		Red	LT5008D		15	50 <sup>*3</sup>	0.91	5	-20 to +60	-20 to +80
		Yellow-green	LT5008E		15	50 <sup>*3</sup>	0.91	5	-20 to +60	-20 to +80
16X16	31.9X31.9	Red(High-luminosity)		LT5013T	15	80 <sup>*3</sup>	1.45	5	-20 to +60	-20 to +80
		Red	LT5014D		15	80 <sup>*3</sup>	1.45	5	-20 to +60	-20 to +80
		Sunset orange	LT5014S		15	80 <sup>*3</sup>	1.45	5	-20 to +60	-20 to +80
		Yellow-green	LT5014E		15	80 <sup>*3</sup>	1.45	5	-20 to +60	-20 to +80
	31.7X31.7	Yellow-green/Red(High-luminosity)	LT5040ET		15	50 <sup>*3</sup>	1.45	5	-20 to +60	-20 to +80
		Red(High-luminosity)	LT5005T		15	80 <sup>*3</sup>	1.45	5	-20 to +60	-20 to +80
	40X40	Red		LT5005D	15	80 <sup>*3</sup>	1.45	5	-20 to +60	-20 to +80
		Sunset orange		LT5005S	15	80 <sup>*3</sup>	1.45	5	-20 to +60	-20 to +80
		Yellow-green		LT5005E	15	80 <sup>*3</sup>	1.45	5	-20 to +60	-20 to +80
		Yellow-green/Red(High-luminosity)	LT5050ET		15/15	50/50 <sup>*3</sup>	1.45/1.45	5/5	-20 to +60	-20 to +80
	64X64	Yellow-green/Red	LT5016ED		15	80 <sup>*3</sup>	1.45	5	-20 to +60	-20 to +80
	96X96	Yellow-green/Red	LT5026ED		15	80 <sup>*3</sup>	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

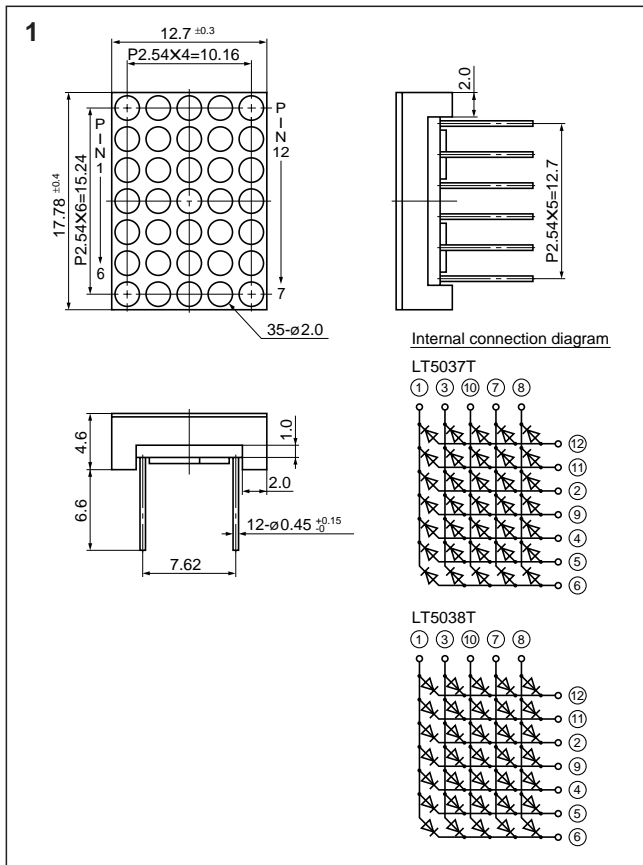
## Electro-optical Characteristics Figures shown below are values per dot.

(Ta=25°C)

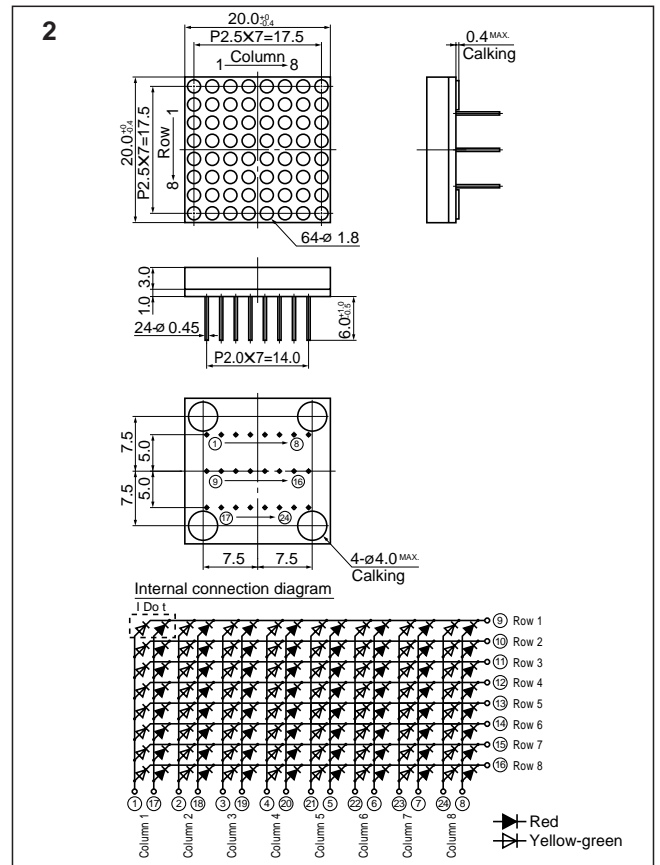
Number of dots	Outline dimensions (mm)	Radiation color	Model No.		Forward voltage <sup>*2</sup> V <sub>F</sub> (V)		Luminous intensity <sup>*3</sup> I <sub>v</sub> (mcd) TYP.	Peak emission wavelength λ <sub>p</sub> (nm) TYP.	Spectrum radiation bandwidth Δλ(nm) TYP.		Reverse current I <sub>R</sub> (μA) MAX. V <sub>R</sub> (V)	
			Anode common*1	Cathode common*1	TYP.	MAX.			I <sub>F</sub> (mA)	I <sub>R</sub> (μA) MAX.	V <sub>R</sub> (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<sub>FM</sub>=50mA \*3 I<sub>F</sub>=10mA

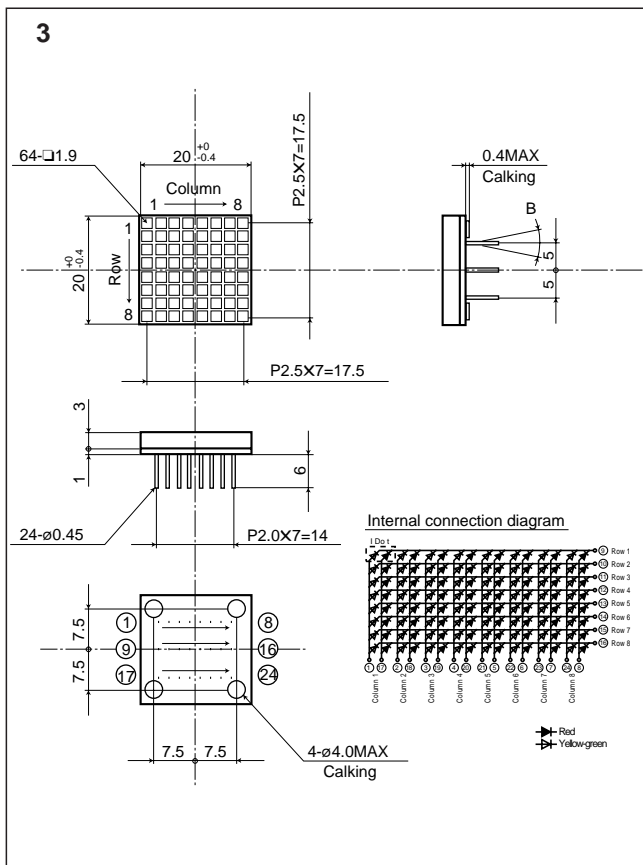
# Dot Matrix LED Outline Dimensions(Unit:mm)



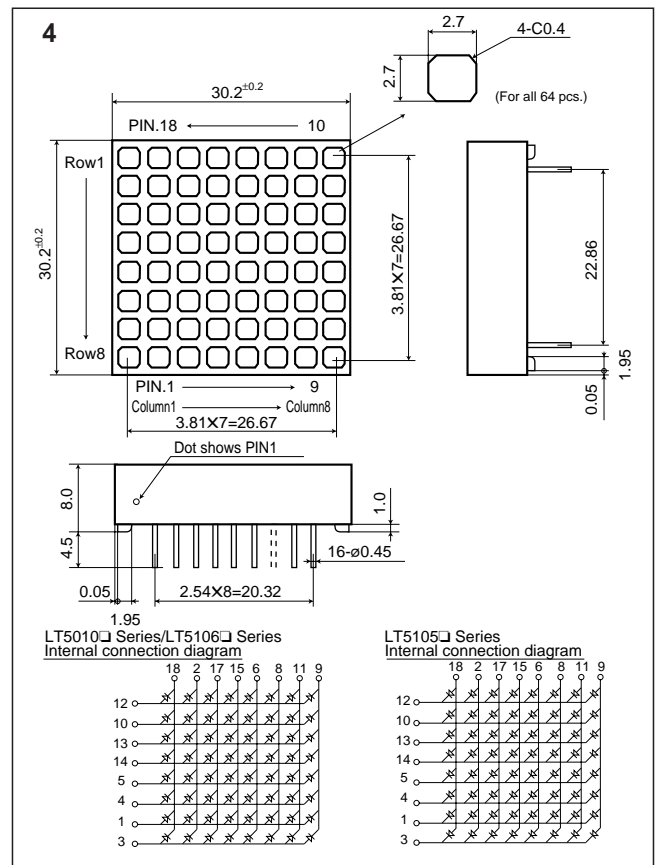
LT5037T/LT5038T



LT5017ED



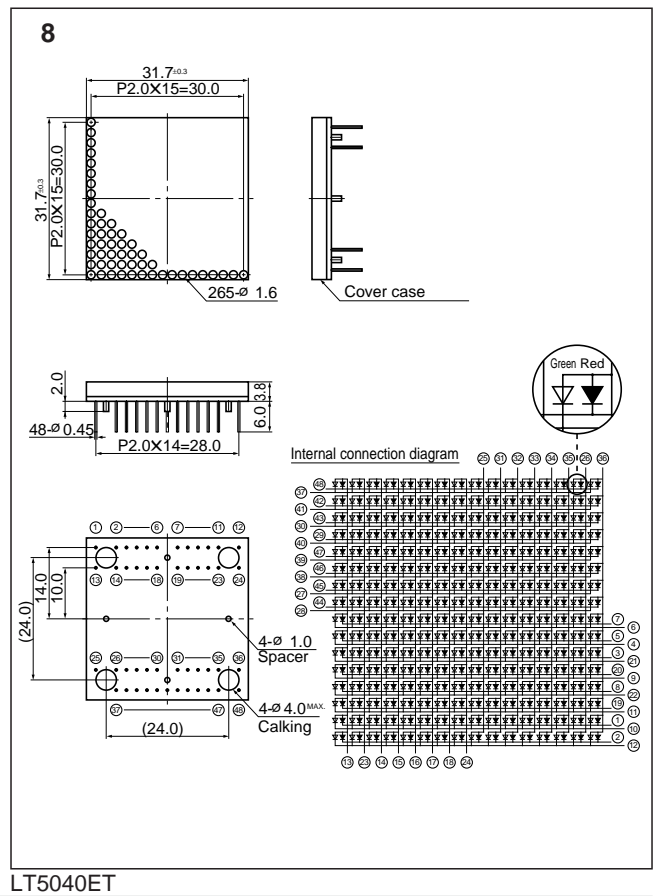
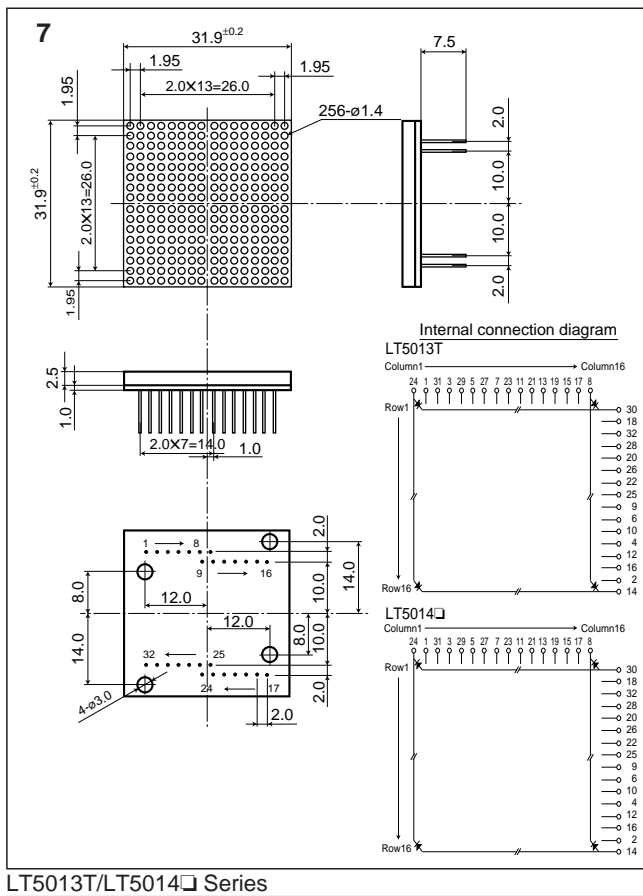
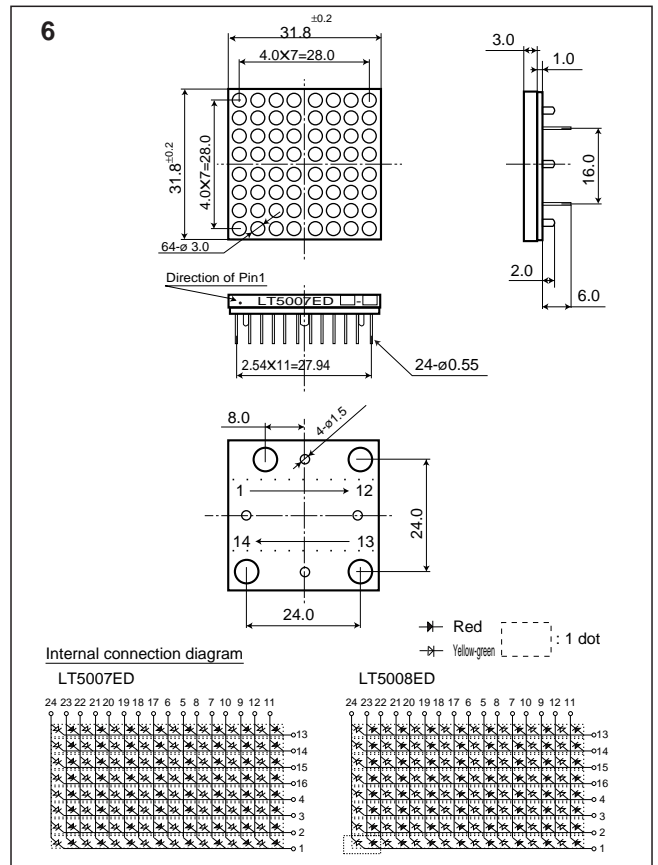
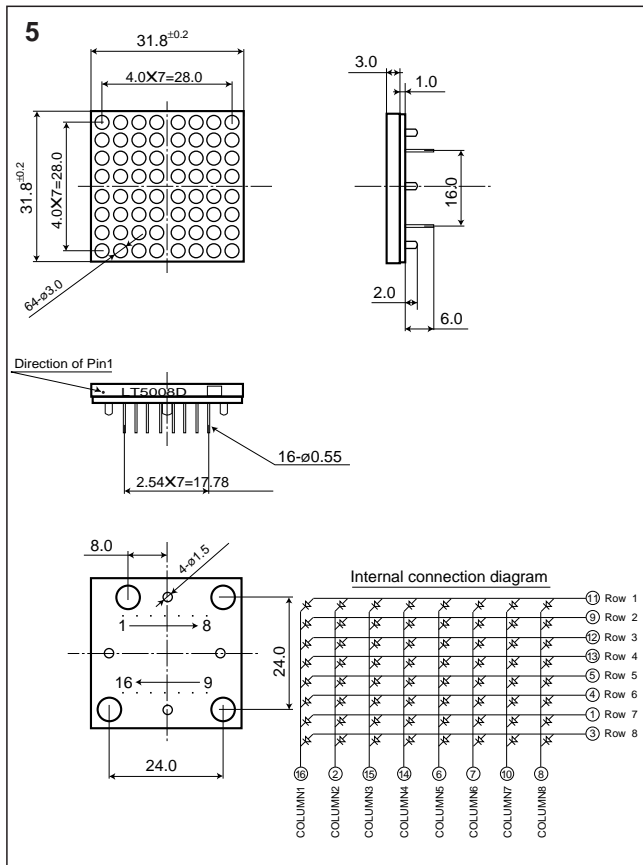
LT5027ED



LT5010 Series LT5105 Series/LT5106 Series

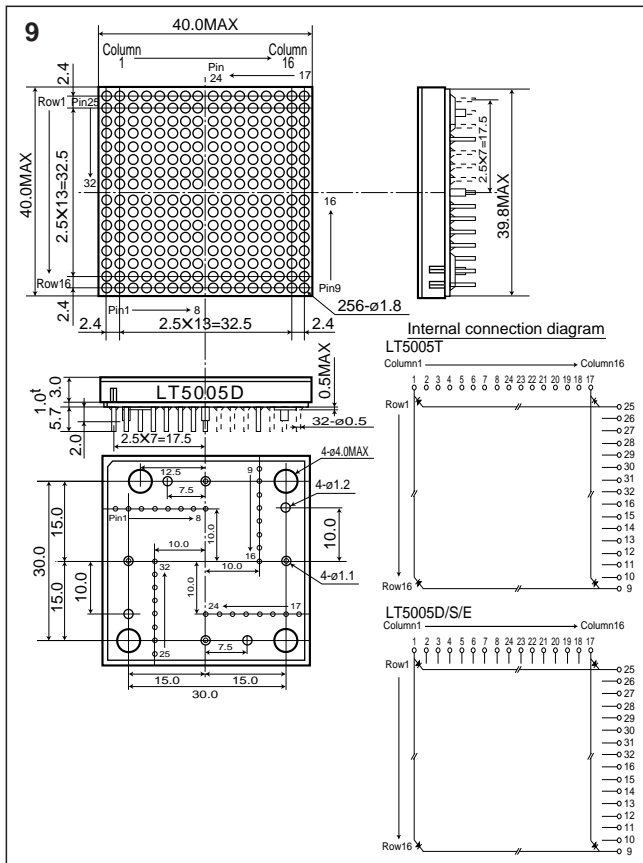
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 (Internet) • Data for sharp's optoelectronic/power device is provided for internet.(Address <http://www.sharp.co.jp/ecg/>)

# Dot Matrix LED Outline Dimensions(Unit:mm)

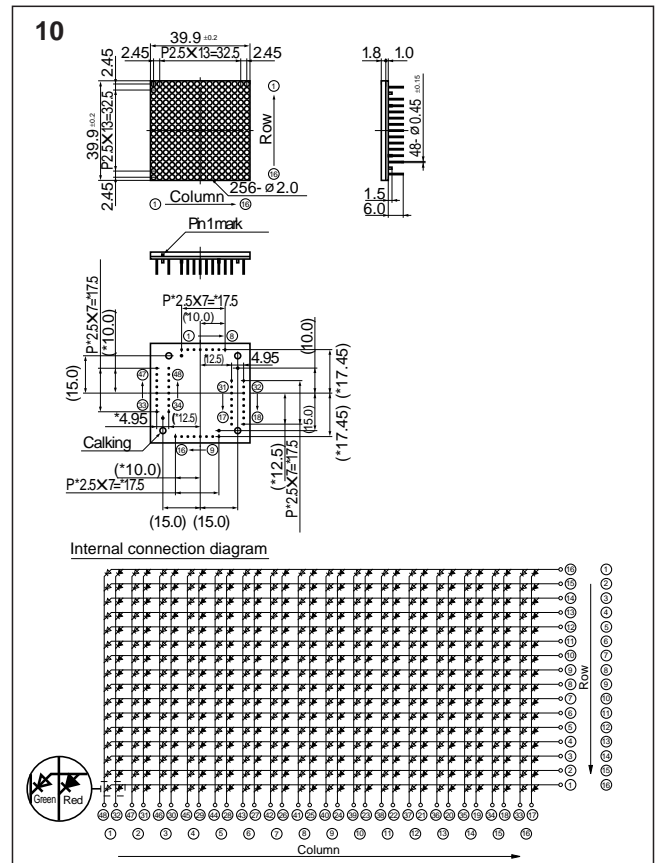


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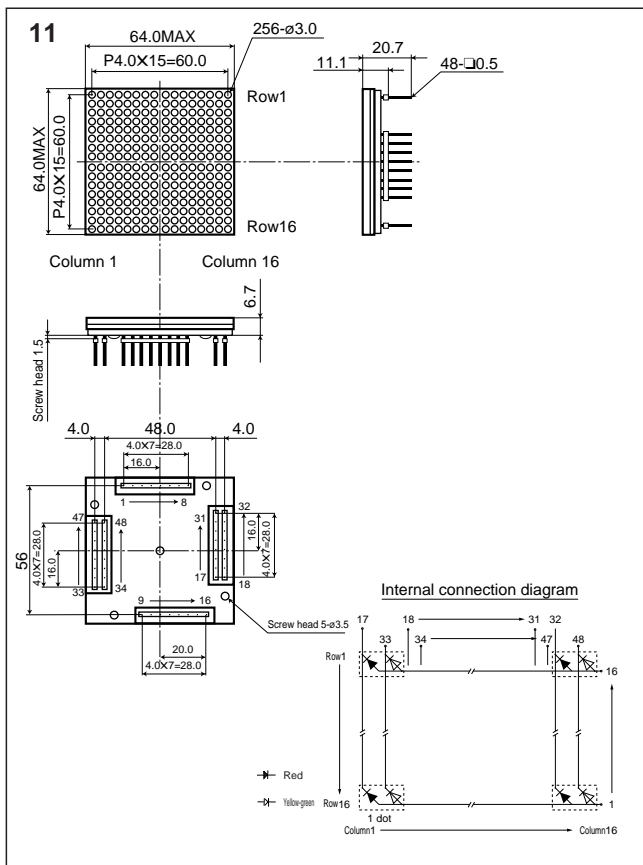
# Dot Matrix LED Outline Dimensions(Unit:mm)



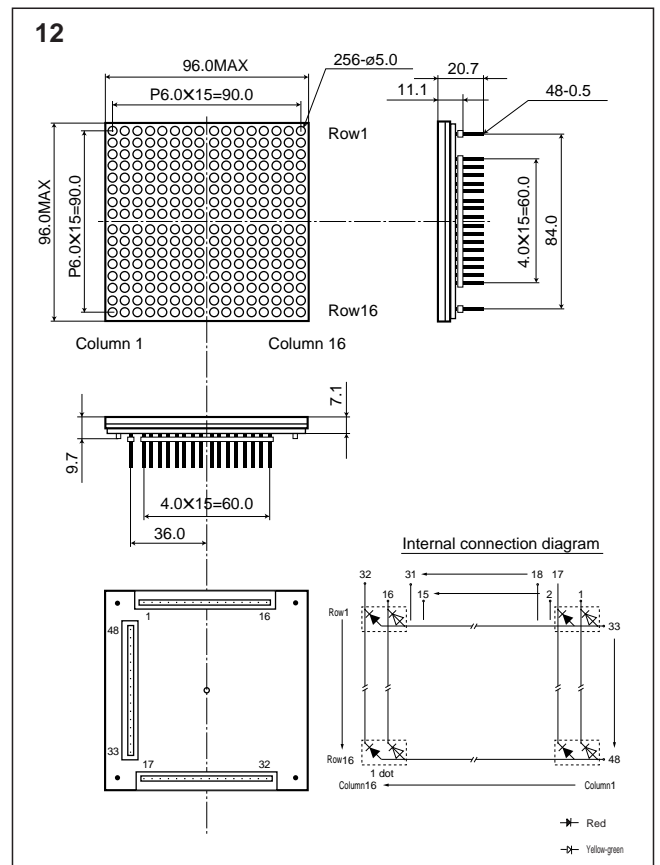
LT5005□ Series



LT5050ET



LT5016ED



LT5026ED

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