

LT5007ED/LT5008ED

8 × 8 Dot Matrix EDS
Dichromatic

■ Model No.

LT5007ED/LT5008ED Yellow-green
Red

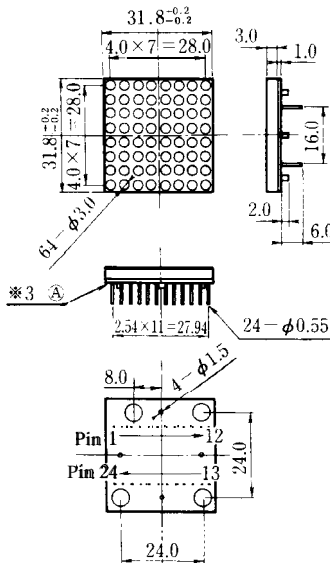
GaP
GaAsP/GaP

■ Features

1. Substrate type
2. 1.1" character height
3. Radiation color : Red, yellow-green and orange (mixed color)

■ Outline Dimensions

(Unit: mm)



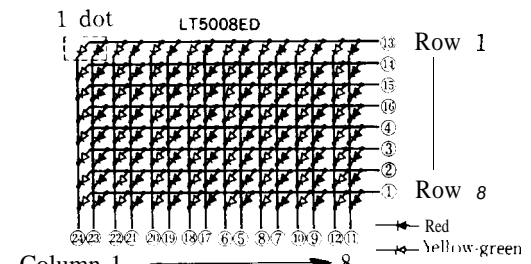
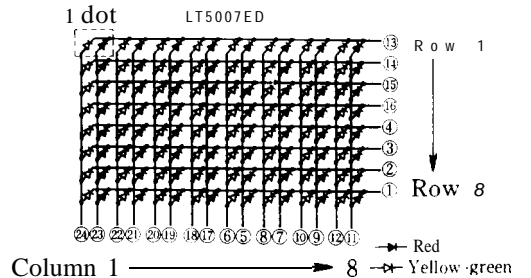
Pin connections

LT5007ED

No.	FUNCTION	No.	FUNCTION
1	Row 8 Cathode	13	Row 1 Cathode
2	Row 7 Cathode	14	Row 2 Cathode
3	Row 6 Cathode	15	Row 3 Cathode
4	Row 5 Cathode	16	Row 4 Cathode
5	Column 5R Anode	17	Column 4R Anode
6	Column 5Yg Anode	18	Column 4Yg Anode
7	Column 6R Anode	19	Column 3R Anode
8	Column 6Yg Anode	20	Column 3Yg Anode
9	Column 7R Anode	21	Column 2R Anode
10	Column 7Yg Anode	22	Column 2Yg Anode
11	Column 8R Anode	23	Column 1R Anode
12	Column 8Yg Anode	24	Column 1Yg Anode

R Red
Yg Yellow-green

Internal connection diagram



LT5008ED

No.	FUNCTION	No.	FUNCTION
1	Row 8 Antic	13	Row 1 Anode
2	Row 7 Anode	14	Row 2 Anode
3	Row 6 Anode	15	Row 3 Anode
4	Row 5 Anode	16	Row 4 Anode
5	Column 5R Cathode	17	Column 4R Cathode
6	Column 5Yg Cathode	18	Column 4Yg Cathode
7	Column 6R Cathode	19	Column 3R Cathode
8	Column 6Yg Cathode	20	Column 3Yg Cathode
9	Column 7R Cathode	21	Column 2R Cathode
10	Column 7Yg Cathode	22	Column 2Yg Cathode
11	Column 8R Cathode	23	Column 1R Cathode
12	Column 8Yg Cathode	24	Column 1Yg Cathode

R : Red
Yg Yellow-green



LT5007ED/LT5008ED

■ Absolute Maximum Ratings

(Ta = 25°C)

Parameter		Symbol	LT5007ED LT5008ED				Unit
			Yellow-green	Red			
※1 Power dissipation		P	1140				mW
Continuous forward current	Per dot	I _F	15	15			mA
※2 Peak forward current	Per dot	I _{FM}	50	50			mA
Derating factor	Per dot	'c	-	-			mA/°C
	Pulse	-	0.91	0.91			mA/°C
Reverse voltage	Per dot	V _R	5	5			v
Operating temperature		T _{opr}	-20 to +60				°C
Storage temperature		T _{stg}	-20 to +80				°C
※3 Soldering temperature		T _{sol}	260 (within 5 seconds)				°C

※1 Per device : 128chip (64chip each for red and yellow-green)

※2 Duty ratio= 1/10, Pulse width =0.1ms, Lighting ratio=50%

When a unit is driven over half rate of lighting, a heat sink must be installed

※3 At the position of 3.6 mm from (A) level of outline dimensions

LT5007ED/LT5008 ED(Yellow-green/Red)

■ Electro-optical Characteristics ※4

(Ta = 25°C)

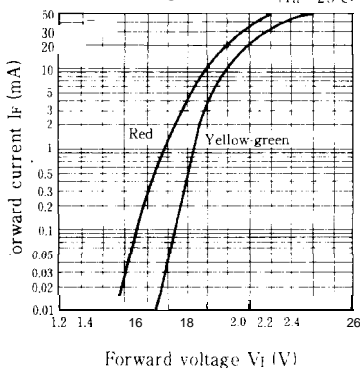
Parameter	Symbol	Radiation color	Conditions	MIN.	TYP	MAX.	Unit
Forward voltage	VF	Yellow-green	IF = 10mA		2.0	-	V
		Red	IF = 10mA		1.9	-	
		Yellow-green	IFM = 50mA	-	2.4	3.0	
		Red	IFM = 50mA	-	2.2	2.7	
※5 Luminous intensity	IV	Yellow-green	IF = 10mA	1.6	2.8	-	mcd
Red	IF = 10mA	1.2	2.0	-			
Peak emission wavelength	λp	Yellow-green	IFM = 50mA	-	565	-	nm
		Red	IFM = 50mA	-	635	-	
Spectrum radiation bandwidth	Δλ	Yellow-green	IFM = 50mA	-	-	30	nm
		Red	IFM = 50mA	-	-	35	
Reverse current	IR	Yellow-green	VR = 4V		10	-	μA
		Red	VR = 4V		10	-	
Response frequency	fc	Yellow-green		-	4	-	MHz
		Red		-	4	-	

※4 Per dot

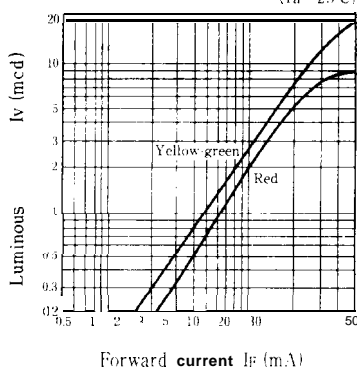
※5 Tolerance: ±30%

■ Characteristics Diagrams

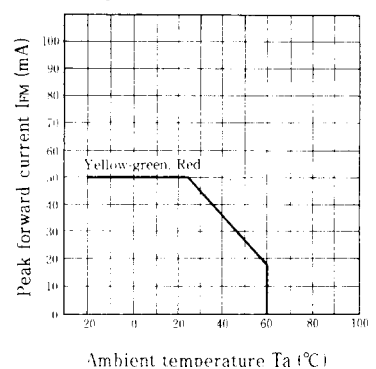
Forward Current vs. Forward Voltage (Ta = 25°C)



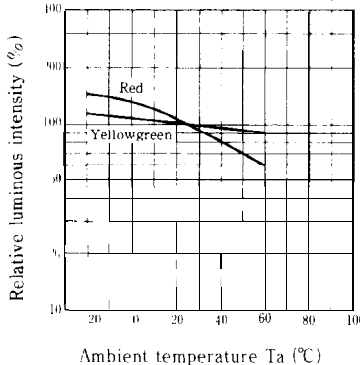
Luminous Intensity vs. Forward Current (Ta = 25°C)



Peak Forward Current Derating Curve



Relative Luminous Intensity vs. Ambient Temperature (If = 10mA, 41)



Spectrum Distribution (Ta = 25°C)

