

LT5013T

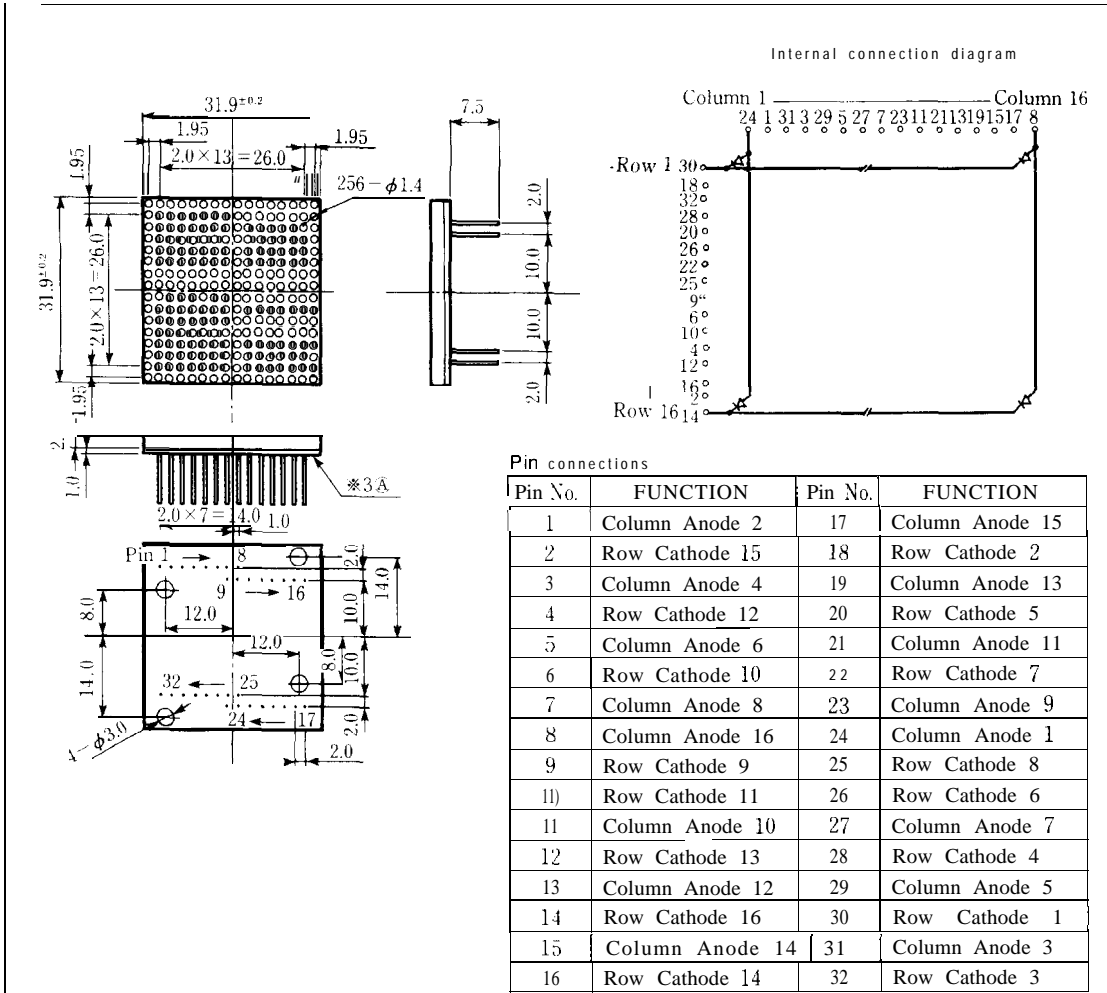
16x 16 Dot Matrix LEDs

■ Model No.
 LT5013T Red GaAlAs/GaAs

- Features
- 1 Substrate type
 2. 1.18" character height

■ Outline Dimensions

(Unit: mm)



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LT5013T

■ Absolute Maximum Ratings

(Ta = 25°C)

Parameter	Symbol	LT5013T					Unit
*1 Power dissipation	P	920					mW
Continuous forward current	I _F	15					mA
*2 Peak forward current	I _{FM}	80					mA
Derating factor	Per dot	DC	—				mA/°C
		Pulse	—	1.45			
Reverse voltage	V _R	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

*2 Duty ratio = 1/16, Pulse width = 0.1ms, Lighting ratio ~30%

When the lighting ratio is over 30%, a heat sink must be installed

*3 At the position of 2.6 mm from (A) level of outline dimensions

LT5013T(Red)

■ Electro-optical Characteristics *4

(Ta = 25°C)

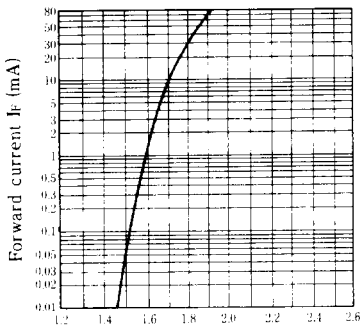
Parameter	Symbol	Model NO.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V _F	LT5013T	I _F = 10mA		1.7	–	V
		LT5013T	I _{FM} = 50mA	–	1.85	2.3	
*5 Luminous intensity	I _v	LT5013T	I _F = 10mA	0.80	1.6	–	mcd
Peak emission wavelength	λ _p	LT5013T	I _{FM} = 50mA	–	660	–	nm
Spectrum radiation bandwidth	Δλ	LT5013T	I _{FM} = 50mA	–	20	–	nm
Reverse current	I _R	LT5013T	V _R = 4V	–	–	10	μA
Response frequency	f _c	LT5013T	–	–	8	–	MHz

*4 Per dot

*5 Tolerance: ±30%

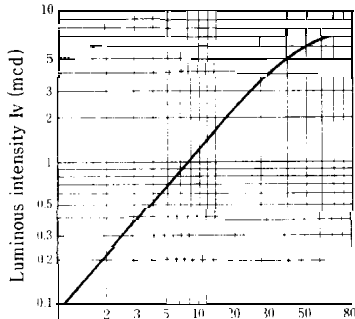
■ Characteristics Diagrams

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



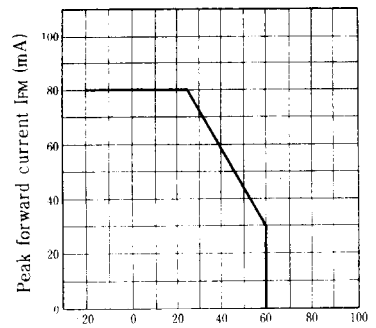
Forward voltage V_F (V)

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



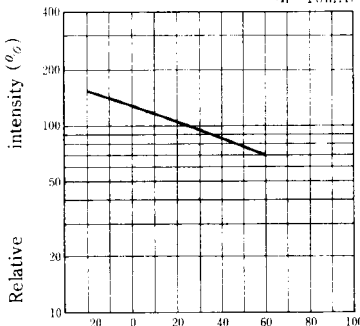
Forward current I_F (mA)

Peak Forward Current Derating Curve



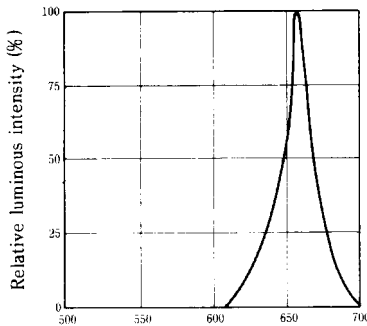
Ambient temperature Ta (°C)

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



Ambient temperature Ta (°C)

Spectrum Distribution (Ta = 25°C)



Wavelength λ (nm)

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