LT1 ❑ 52A Series Colorless Transparency Chip LED Devices

■ Model No.

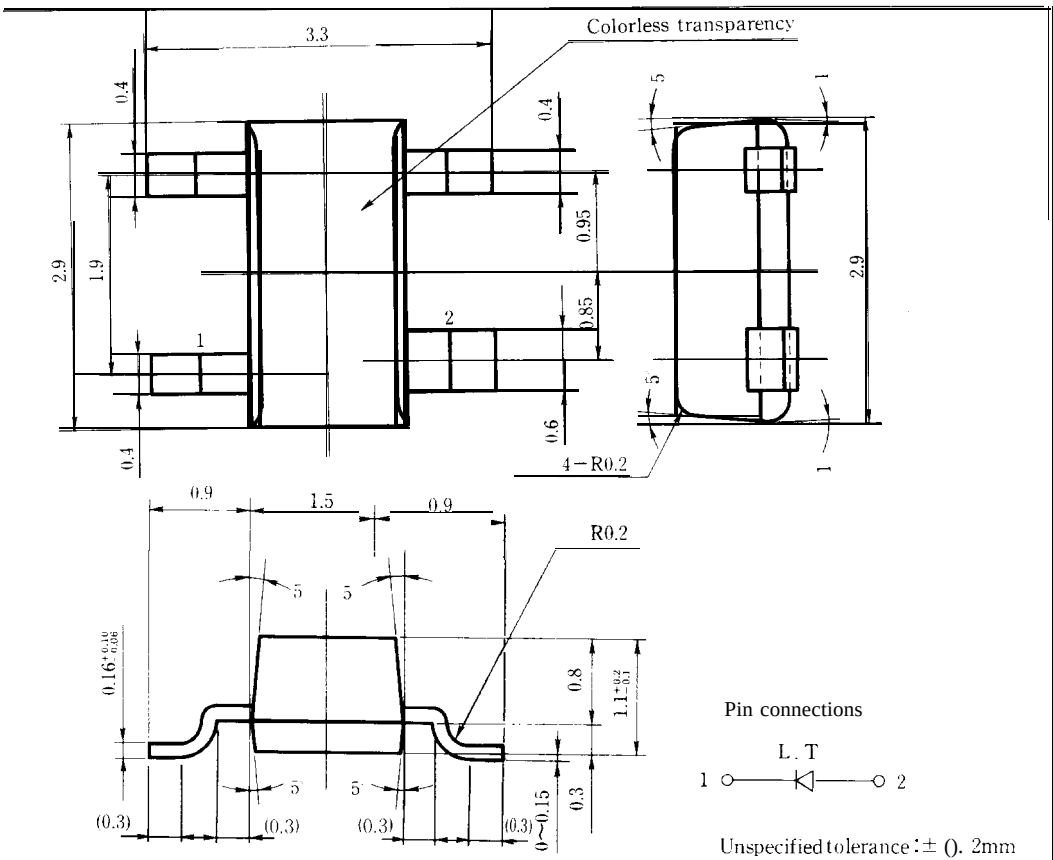
LT1L52A Red (High-luminosity) GaAlAs/GaAs
LT1T52A Red (High-luminosity) GaAlAs/GaAs

■ Features

1. Radiation size 1.5 × 2.9mm
2. Colorless transparency lens type
3. Taped models : Tape width 8mm, 3,000 pcs/reel

■ Outline Dimensions

(Unit: mm)



Unspecified tolerance : ± (). 2mm

Regarding the taping specifications, please see "Taped Models" of Appendix.

LT1 ❑ 52A

■ Absolute Maximum Ratings

(Ta = 25°C)

Parameter		Symbol	LT1L52A	LT1T52A				Unit
Power dissipation		P	110	66				mW
Continuous forward current		I_F	50	30				mA
※1 Peak forward current		I_{FM}	300	50				mA
Derating factor	DC	—	0.67	0.40				mA/°C
	Pulse	—	4.00	0.67				mA/°C
Reverse voltage		V_R	5	5				V
Operating temperature		T_{opr}	–25 to +85					°C
Storage temperature		T_{stg}	–25 to +100					°C

※1 Duty ratio = 1/10, Pulse width = 0.1ms
Duty ratio = 1/16, Pulse width ≦ 1ms for LT1L52A

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LT1L52A (Red)/ LT1T52A (Red)

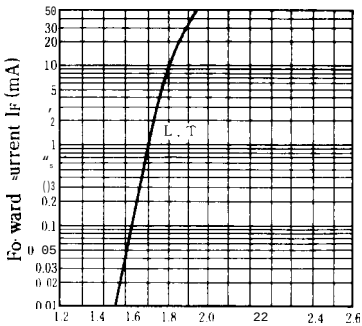
■ Electro-optical Characteristics (Ta=25°C)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V_F	LT1L52A	I_F=20mA	—	1.75	2.2	V
		LT1T52A	I_F=20mA	—	1.75	2.2	
※2 Luminous intensity	I_V	LT1L52A	I_F=20mA	6.0	15	—	mcd
		LT1T52A	I_F=20mA	4.5	9.0	—	
Peak emission wavelength	λ_p	LT1L52A	I_F=20mA	—	660	—	‘m
		LT1T52A	I_F=20mA	—	660	—	
Spectrum radiation bandwidth	$\Delta\lambda$	LT1L52A	I_F=20mA	—	20	—	‘m
		LT1T52A	I_F=20mA	—	20	—	
Reverse current	I_R	LT1L52A	V_R=4V			10	μA
		LT1T52A	V_R=4V	—	—	10	
Terminal capacitance	C_t	LT1L52A	V=OV f=1MHz	—	30	—	pF
		LT1T52A	V=OV f=lMHz	—	30	—	
Response frequency	f_c	LT1L52A	—		8	—	‘Hz
		LT1T52A	—	—	8	—	

※2 Tolerance: ±30%

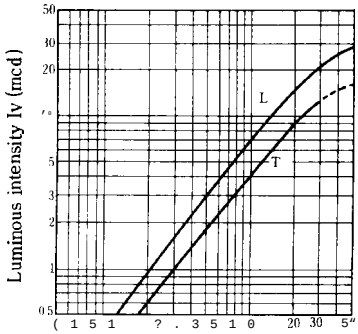
■ Characteristics Diagrams

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



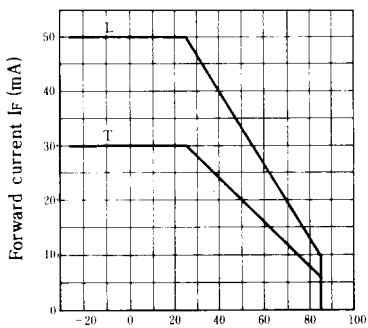
Forward voltage V_F (V)

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



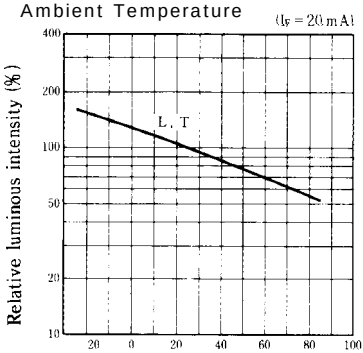
Forward current I_F (mA)

Forward Current Derating Curve



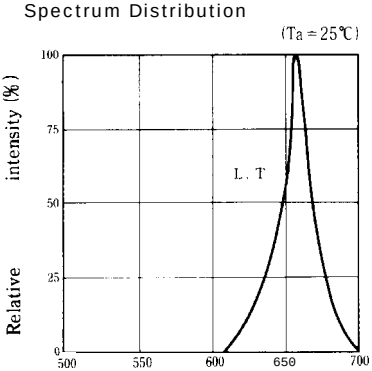
Ambient temperature Ta (°C)

Relative Luminous Intensity va. Ambient Temperature (I_F=20mA)



Ambient temperature Ta (°C)

Spectrum Distribution (Ta=25°C)



Wavelength λ (nm)