

# Dichromatic LED Lamps

T-41-25

## ■ Dichromatic LED Lamps Line-up

Appearance	Radiation shape (mm)	Lens type				NP Yellow-green + Red	ND Yellow-green + Red	ED Yellow-green (HL)*1 + Red	EP Yellow-green (HL)*1 + Red	HP Yellow + Red	RG Red + Green	EH Yellow-green (HL)*1 + Yellow	EL Yellow-green (HL)*1 + Red (HL)*1	KT Green (HL)*1 + Red (HL)*1	Outline dimensions (Fig.)
		Colored diffusion	Colored transparency	Colorless transparency	Milky diffusion										
Cylinder	3φ				●			GL3ED8							1
	5φ				●	GL5NP5	GL5ND5	GL5ED5	GL5EP5	GL5HP5	GL5RG5				2
	5φ			●								GL5EL44	GL5KT44		2
	5φ				●			GL5ED60							3
	5φ (flared cone)			●		GL5NP27	GL5ND27	GL5ED27	GL5EP27	GL5HP27					4
Rectangle	1.0×5.0				●	GL9NP24	GL9ND24	GL9ED24		GL9HP24					5
	1.9×3.9				●	GL8NP5	GL8ND5	GL8ED5		GL8HP5					6
	2.0×5.0				●	GL9NP2	GL9ND2	GL9ED2		GL9HP2		GL9EH2			7
Square	5.0×5.0				●	GL9NP4	GL9ND4	GL9ED4		GL9HP4					8

## ■ Absolute Maximum Ratings

(Ta=25°C)

Series	Radiation color	Power*2 P (mW)	Continuous forward current I <sub>F</sub> (mA)	Peak*3 forward current I <sub>FM</sub> (mA)	Derating factor		Reverse voltage V <sub>R</sub> (V)	Operating temperature T <sub>opr</sub> (°C)	Storage temperature T <sub>stg</sub> (°C)
					DC (mA/°C)	Pulse (mA/°C)			
NP	Yellow-green	84	30	50	0.4	0.67	5	-25~+85	-25~+100
	Red	35	15	50	0.2	0.67	5	-25~+85	-25~+100
ND	Yellow-green	84	30	50	0.4	0.67	5	-25~+85	-25~+100
	Red	84	30	50	0.4	0.67	5	-25~+85	-25~+100
ED	Yellow-green (HL)*1	84	30	50	0.4	0.67	5	-25~+85	-25~+100
	Red	84	30	50	0.4	0.67	5	-25~+85	-25~+100
EP	Yellow-green (HL)*1	84	30	50	0.4	0.67	5	-25~+85	-25~+100
	Red	35	15	50	0.2	0.67	5	-25~+85	-25~+100
HP	Yellow	50	20	50	0.27	0.67	5	-25~+85	-25~+100
	Red	35	15	50	0.2	0.67	5	-25~+85	-25~+100
RG	Green	84	30	50	0.4	0.67	5	-25~+85	-25~+100
	Red	38	15	50	0.2	0.67	5	-25~+85	-25~+100
EH	Yellow-green (HL)*1	84	30	50	0.4	0.67	5	-25~+85	-25~+100
	Yellow	50	20	50	0.27	0.67	5	-25~+85	-25~+100
EL	Yellow-green (HL)*1	84	30	50	0.4	0.67	5	-25~+85	-25~+100
	Red (HL)*1	110	50	300*5	0.67	4.0	5	-25~+85	-25~+100
KT	Green (HL)*1	84	30	50	0.4	0.67	5	-25~+85	-25~+100
	Red (HL)*1	110	50	300*5	0.67	4.0	5	-25~+85	-25~+100

## ■ Electro-optical Characteristics

(Ta=25°C)

Series	Radiation color	Forward voltage V <sub>F</sub> (V)		Peak emission wavelength λ <sub>p</sub> (nm)	Spectrum radiation bandwidth Δλ (nm)		Reverse current I <sub>R</sub> (μA)		Terminal** capacitance C <sub>t</sub> (pF)
		TYP	MAX		TYP	Conditions I <sub>F</sub> (mA)	MAX	Conditions V <sub>R</sub> (V)	
NP	Yellow-green	2.1	2.8	565	30	20	10	4	35
	Red	1.9	2.3	695	100	10	10	4	55
ND	Yellow-green	2.1	2.8	565	30	20	10	4	35
	Red	2.0	2.8	635	35	20	10	4	20
ED	Yellow-green (HL)*1	2.1	2.8	565	30	20	10	4	35
	Red	2.0	2.8	635	35	20	10	4	20
EP	Yellow-green (HL)*1	2.1	2.8	565	30	20	10	4	35
	Red	1.9	2.3	695	100	10	10	4	55
HP	Yellow	1.9	2.5	585	30	10	10	4	35
	Red	1.9	2.3	695	100	10	10	4	55
RG	Green	2.1	2.8	555	25	20	10	4	40
	Red	1.9	2.3	695	100	10	10	4	55
EH	Yellow-green (HL)*1	2.1	2.8	565	30	20	10	4	35
	Yellow	1.9	2.5	585	30	10	10	4	35
EL	Yellow-green (HL)*1	2.1	2.8	565	30	20	10	4	35
	Red (HL)*1	1.75	2.2	660	20	20	10	4	30
KT	Green (HL)*1	2.1	2.8	555	25	20	10	4	40
	Red (HL)*1	1.75	2.2	660	20	20	10	4	30

\*1 HL: High-luminosity

\*2 Each dissipation value is chip's own ratings at emitting light independently. The dissipation at the time when both chips are simultaneously emitting light should be within the half of the value.

\*3 Duty ratio 1/10, Pulse width 0.1ms

\*4 V=0V, f=1MHz

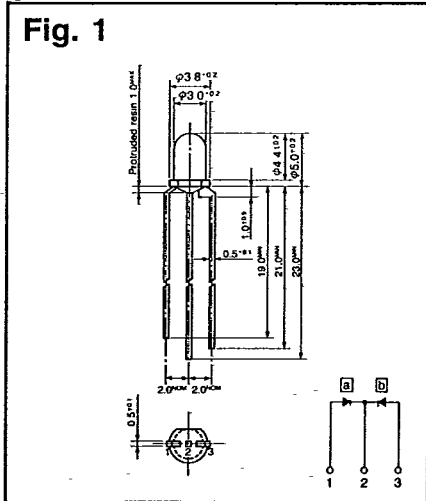
# Dichromatic LED Lamps

## Dichromatic LED Lamps Luminous Intensity

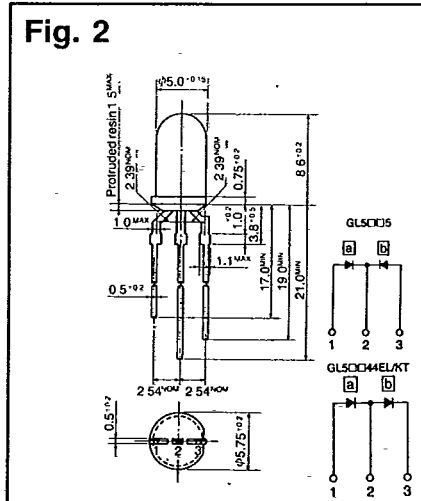
Appearance	Radiation shape (mm)	Radiation color Series Iv (mcd)	NP				ND				ED				EP			
			N Yellow-green		P Red		N Yellow-green		D Red		E Yellow-green (HL)*		D Red		E Yellow-green (HL)*		P Red	
			MIN	TYP	MIN	TYP	MIN	TYP	MIN	TYP	MIN	TYP	MIN	TYP	MIN	TYP	MIN	TYP
Cylinder	3φ	GL3□□8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	5φ	GL5□□5	5	13	2	3	5	13	5	13	10	40	10	25	10	40	3	9
	5φ	GL5□□44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	5φ (Inverted cone)	GL5□□27	1.3	3	0.4	1	1	3	1	3	2	5	1	3	2	5	0.4	1
Rectangle	1.0×5.0	GL9□□24	3	6	0.5	0.9	1.5	3.5	1.5	3	3	8	1.5	4	—	—	—	—
	1.9×3.9	GL8□□5	2.5	6	0.5	1.5	2.5	6	2.5	6	4	10	2.5	6	—	—	—	—
	2.0×5.0	GL9□□2	1.5	3.5	0.5	0.8	1.5	3.5	1.5	3	3	8	1.5	3	—	—	—	—
Square	5.0×5.0	GL9□□4	1	3	0.5	0.9	1	3	1.5	3	2.5	7	1.5	4	—	—	—	—

\* HL: High-luminosity

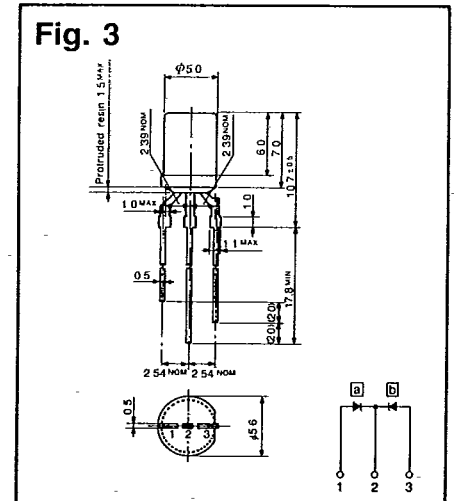
## Outline Dimensions



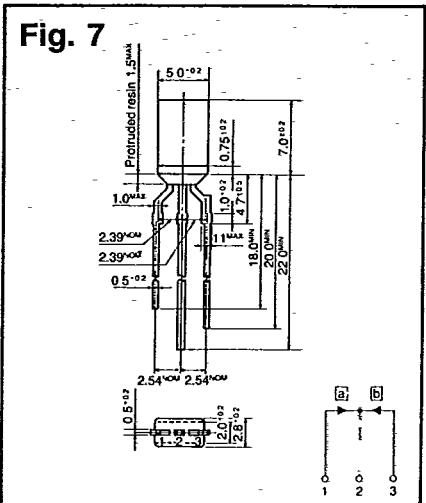
GL3□□8 Series



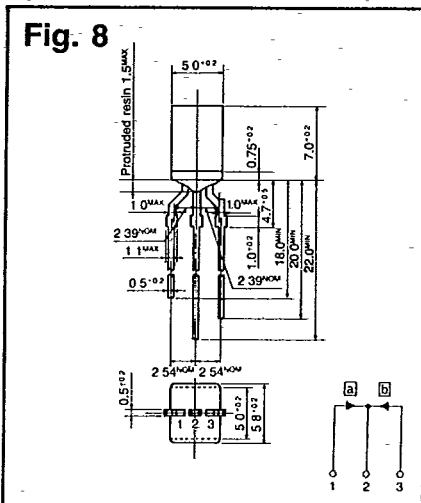
GL5□□5 Series, GL5□□44 Series



GL5□□60 Series



GL9□□2 Series



GL9□□4 Series

# Dichromatic LED Lamps

SHARP ELEK/ MELEC DIV

T-41-25

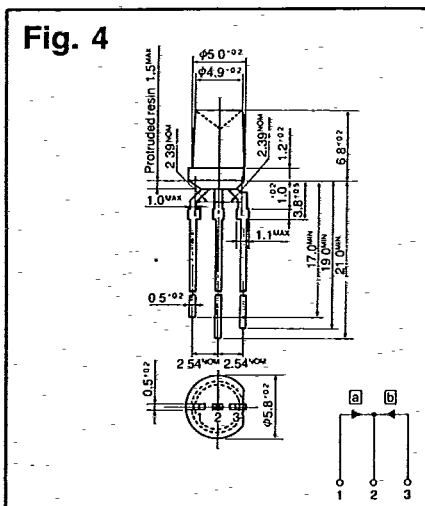
10E D

8180798 0000458 4

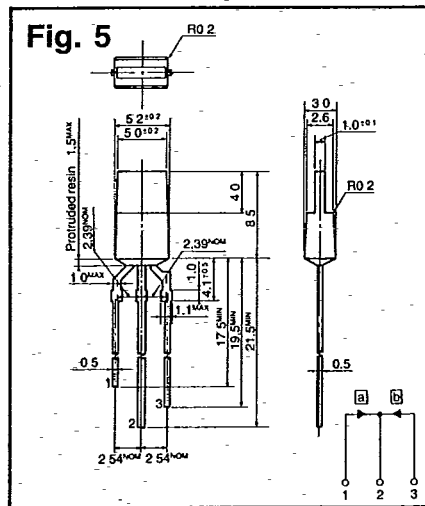
Note) □□ indicates radiation color symbol (Ta=25°C)

HP				RG				EH				EL				KT				Series
H Yellow		P Red		R Red		G Green		E Yellow-green (HL)*		H Yellow		E Yellow-green (HL)*		L Red (HL)*		K Green (HL)*		T Red (HL)*		
MIN	TYP	MIN	TYP	MIN	TYP	MIN	TYP	MIN	TYP	MIN	TYP	MIN	TYP	MIN	TYP	MIN	TYP	MIN	TYP	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	GL3□□8
4	15	3	9	5	10	7	20	—	—	—	—	—	—	—	—	—	—	—	—	GL5□□5
—	—	—	—	—	—	—	—	—	—	—	—	30	80	40	100	10	30	20	50	GL5□□44
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	GL5□□60
0.5	2	0.4	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	GL5□□27
0.7	2.5	0.6	1.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	GL9□□24
1	3	0.5	1.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	GL8□□5
0.3	1	0.5	0.8	—	—	—	—	2.5	6	0.6	2	—	—	—	—	—	—	—	—	GL9□□2
0.4	1.2	0.5	0.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	GL9□□4

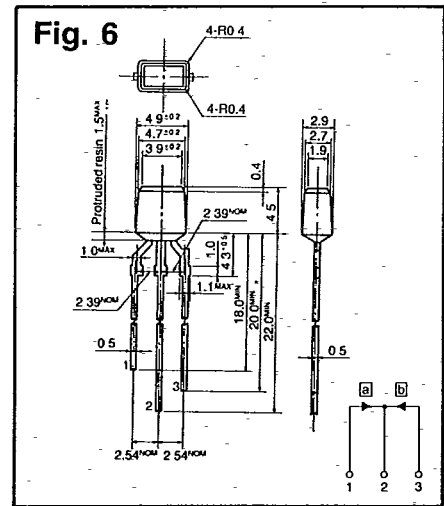
(Unit: mm)



GL5□□27 Series



GL9□□24 Series



GL8□□5 Series

