

LEDs for Bar Graphic Display

T-41-31

SHARP ELEK/ MELEC DIV

10E D 8180798 0000487 0

LEDs for Bar Graphic Display Line-up

Type	Number of dots	Radiation color		Single color				Multiple colors*1				Outline dimensions (Fig.)
		Outline dimensions (Top view) (mm)	Radiation shape per dot (mm)	R(P)	G	N	H	S	M	F	T	
				Red	Green	Yellow-green	Yellow	Yellow-green+Red			Yellow-green+Yellow+Red	
Case mold	12	7.0×58.0	1.5×4.0	GL112R9	GL112G9	GL112N9	GL112H9	GL112S9 (9dots+3dots)	GL112M9 (8dots+4dots)	GL112F9 (7dots+5dots)	GL112T9 (4dots+4dots+4dots)	1
		7.0×70.4	2.2×5.3	GL112R13	GL112G13	GL112N13	GL112H13	GL112S13 (9dots+3dots)	GL112M13 (8dots+4dots)	GL112F13 (7dots+5dots)	GL112T13 (4dots+4dots+4dots)	2
	7	6.0×42.0	2.0×4.5	GL107R12	GL107G12	GL107N12	GL107H12	GL107S12 (5dots+2dots)	GL107M12 (4dots+2dots)			3
	6	6.0×36.0	2.0×4.5	GL106R12	GL106G12	GL106N12	GL106H12		GL106M12 (4dots+2dots)			4
	5	7.0×40.0	2.0×5.0	GL105R11	GL105G11	GL105N11	GL105H11		GL105M11 (3dots+2dots)			5
All-resin*2	7	4.0×43.0	2.0×4.5	GL107R8		GL107N8	GL107H8		GL107M8 (4dots+3dots)			6
	6	4.0×36.6	2.0×4.5	GL106R8		GL106N8	GL106H8		GL106M8 (4dots+2dots)			7
	5	4.0×30.2	2.0×4.5	GL105R8		GL105N8	GL105H8		GL105M8 (3dots+2dots)			8
	4	4.0×23.8	2.0×4.5	GL104R8		GL104N8	GL104H8					9
	3	4.0×17.4	2.0×4.5	GL103R8		GL103N8	GL103H8					10

*1 Composition chart of LEDs for bar graphic display

Type	Model No.	Colors											
		A	B	C	D	E	F	G	H	I	J	K	L
Case mold	GL112S9												
	GL112M9												
	GL112F9												
	GL112T9												
	GL112S13												
	GL112M13												
	GL112F13												
	GL112T13												
	GL107S12												
	GL107M12												
	GL106M12												
GL105M11													
All-resin	GL107M8												
	GL106M8												
	GL105M8												

: Yellow-green
 : Yellow
 : Red

*2 Free length and color combinations are possible by coupling the individual lamps, GL8PR23 series.

Radiation Shape	Model No.	Radiation Color	Applicable Model No.
2.0×4.5	GL8PR23	Red	GL107R8 series
	GL8NG23	Yellow-green	GL106R8 series
	GL8HY23	Yellow	GL105R8 series GL104R8 series GL103R8 series

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Absolute Maximum Ratings

(Ta=25°C)

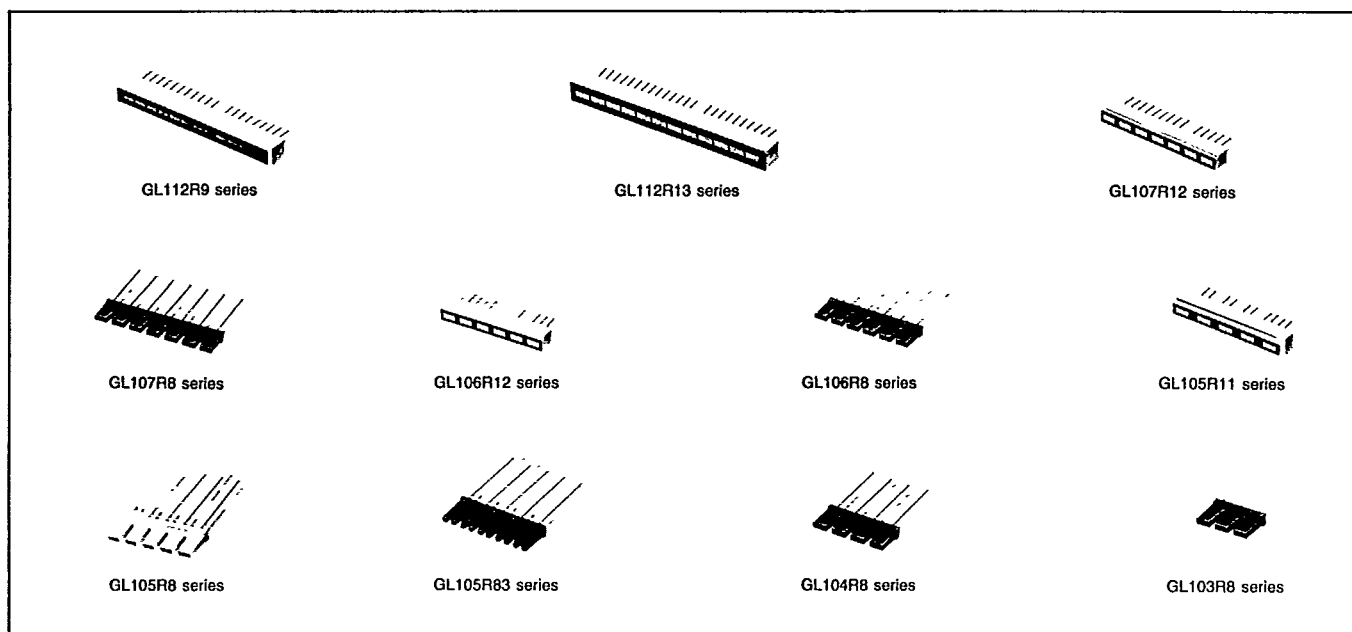
Radiation color	Type	Power dissipation P (mW)	Continuous forward current I _F (mA)	Peak forward current* I _{FM} (mA)	Derating factor		Reverse voltage V _R (V)	Operating temperature Topr (°C)	Storage temperature Tstg (°C)
					DC (mA/°C)	Pulse (mA/°C)			
Red	Case mold	25	10	50	0.18	0.91	5	-20~+70	-30~+80
	All-resin	23	10	50	0.13	0.67	5	-25~+85	-25~+100
Yellow	Case mold	50	20	50	0.36	0.91	5	-20~+70	-30~+80
	All-resin	84	30	50	0.40	0.67	5	-25~+85	-25~+100
Yellow-green	Case mold	38	15	50	0.27	0.91	5	-20~+70	-30~+80
	All-resin	84	30	50	0.40	0.67	5	-25~+85	-25~+100
Green	Case mold	38	15	50	0.27	0.91	5	-20~+70	-30~+80

* Duty ratio 1/10, Pulse width 0.1ms

Electro-optical Characteristics

(Ta=25°C)

Radiation color	Type	Forward voltage V _F (V)		Luminous intensity I _v (mcd)		Peak emission wavelength λ _p (nm)	Spectrum radiation bandwidth Δλ (nm)	Condition I _F (mA)	Reverse current I _R (μA)	Condition V _R (V)
		TYP	MAX	MIN	TYP					
Red	Case mold	1.9	2.5	0.15	0.3	695	100	5	10	4
	All-resin	1.9	2.3	0.3	0.9	695	100	5	10	4
Yellow	Case mold	1.9	2.5	0.2	0.5	585	30	10	10	4
	All-resin	2.0	2.8	1.5	5.0	585	30	20	10	4
Yellow-green	Case mold	2.0	2.5	0.2	0.5	565	30	10	10	4
	All-resin	2.1	2.8	0.6	1.4	565	30	20	10	4
Green	Case mold	2.0	2.5	0.08	0.15	555	25	10	10	4



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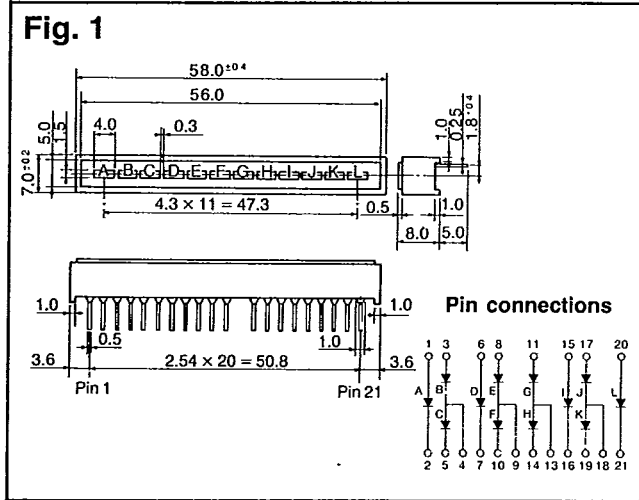
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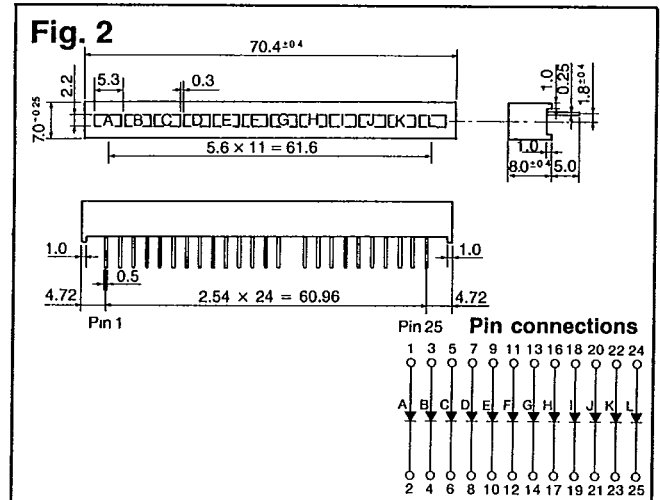
■ Outline Dimensions

(Unit: mm)

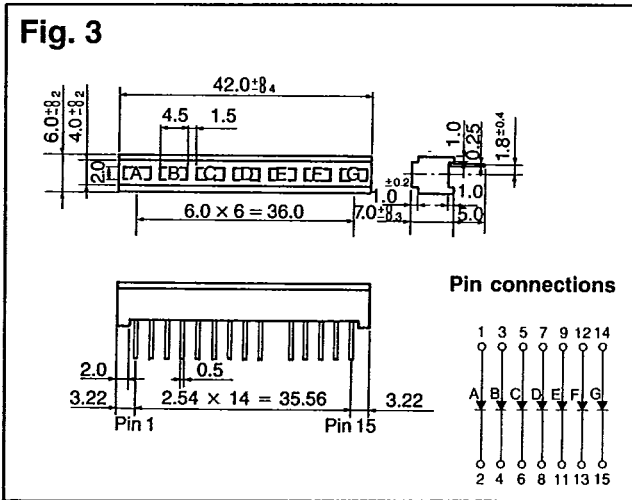
Note) □ indicates radiation color symbol



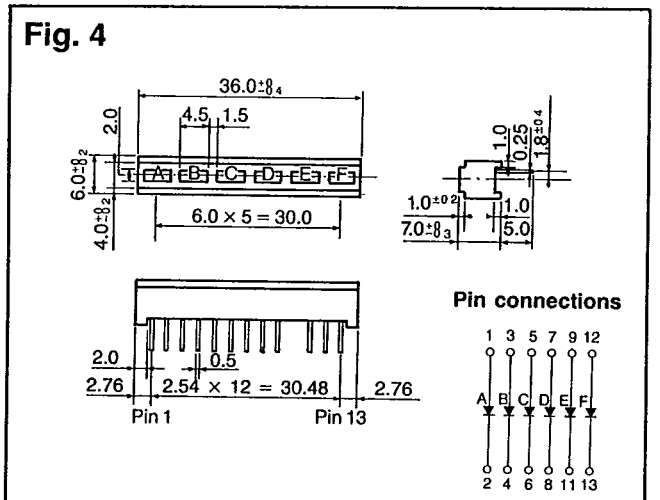
GL112□9 series



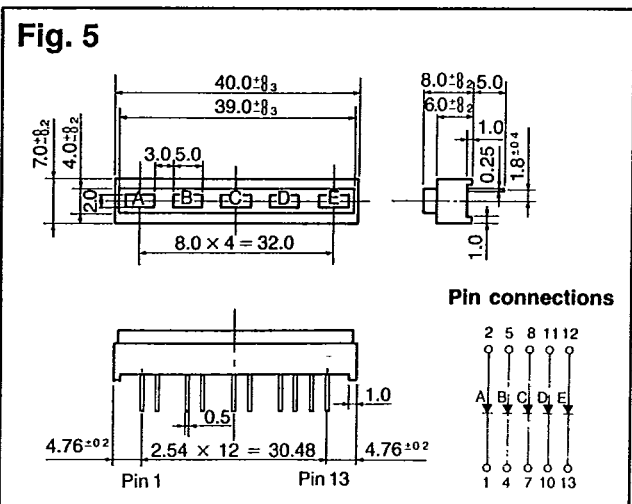
GL112□13 series



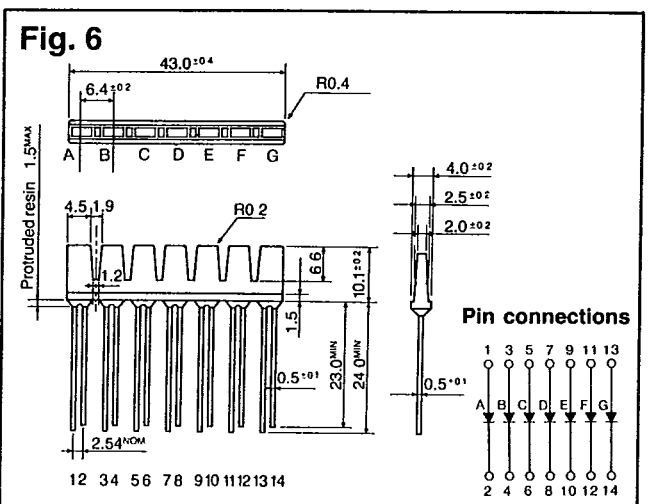
GL107□12 series



GL106□12 series



GL105□11 series



GL107□8 series

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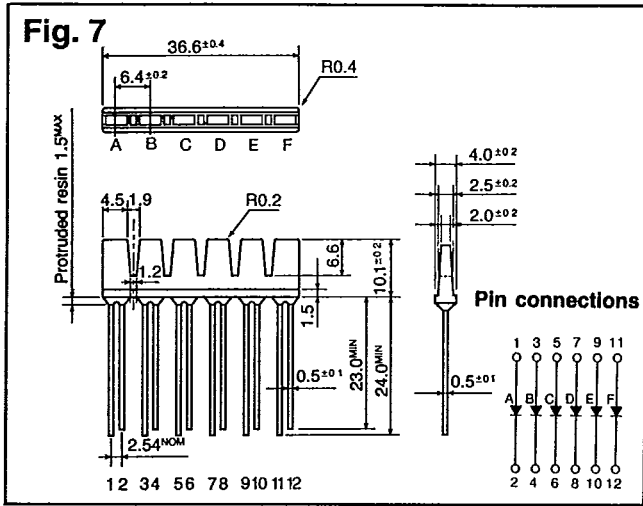
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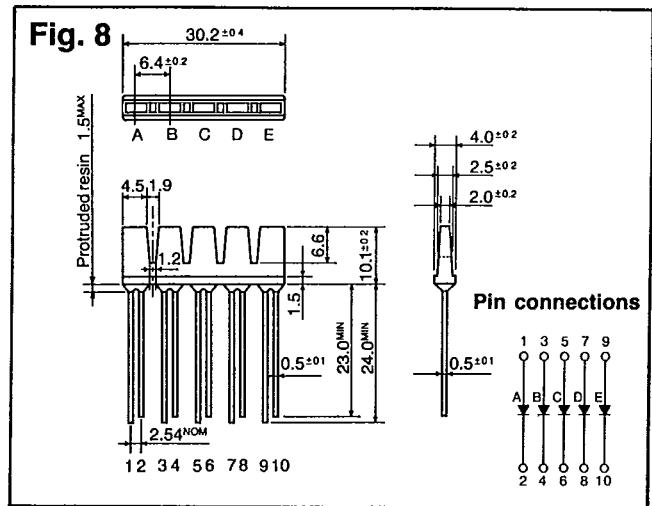
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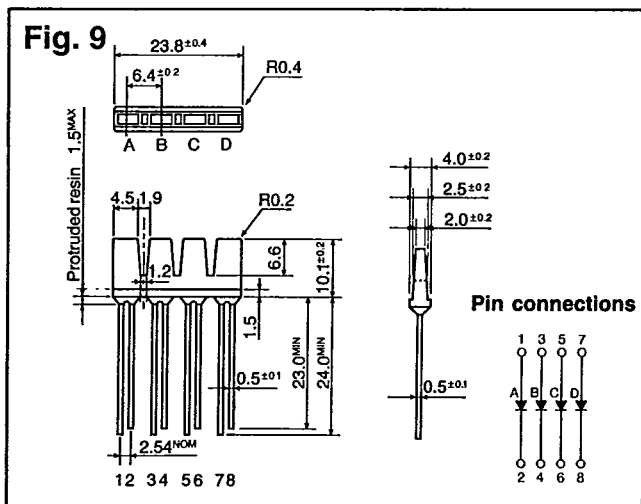
(Unit: mm)



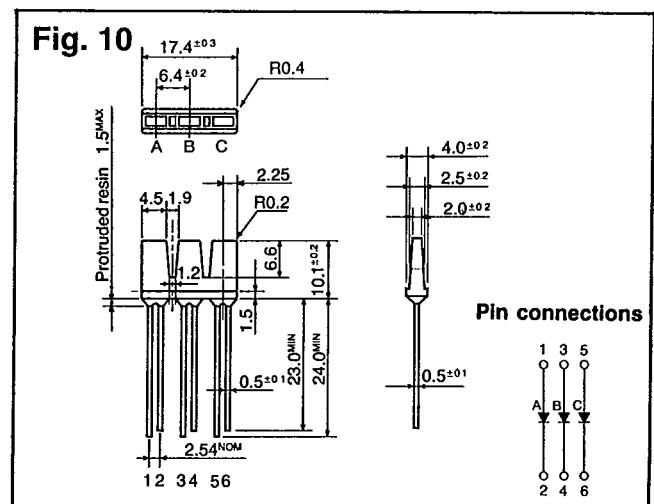
GL106□8 series



GL105□8 series



GL104□8 series



GL103□8 series