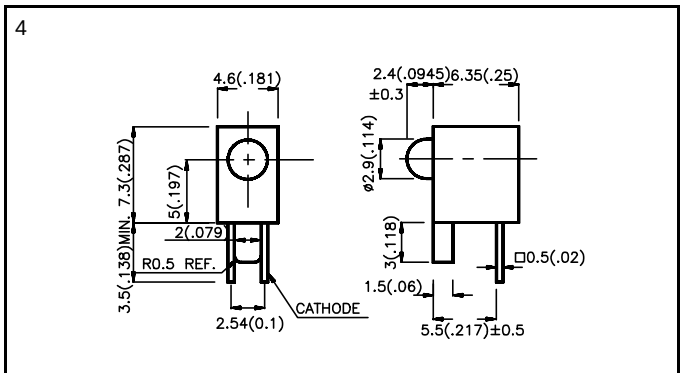
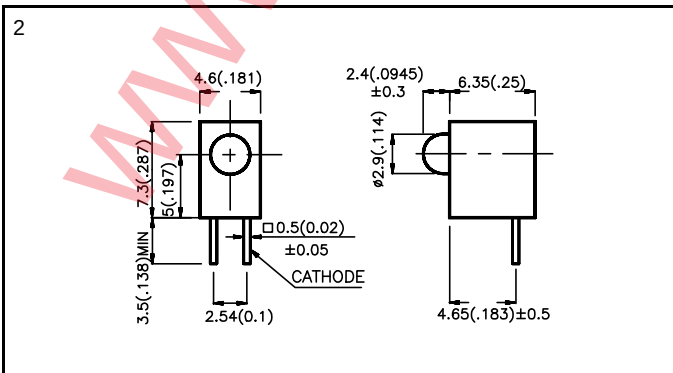
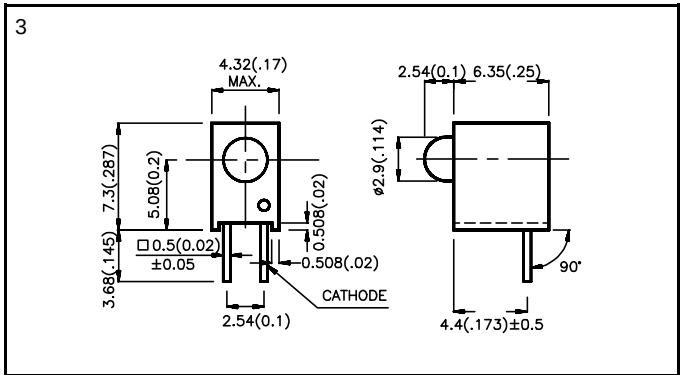
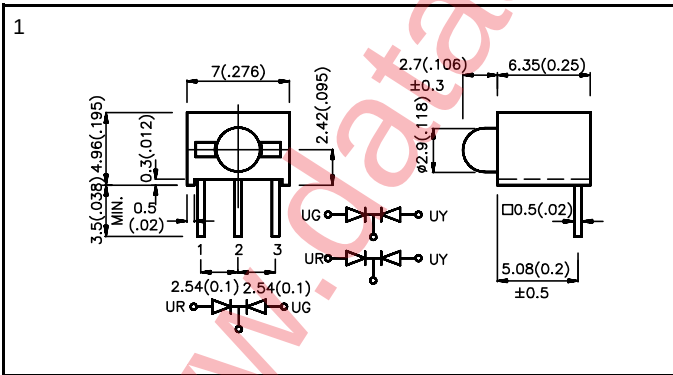


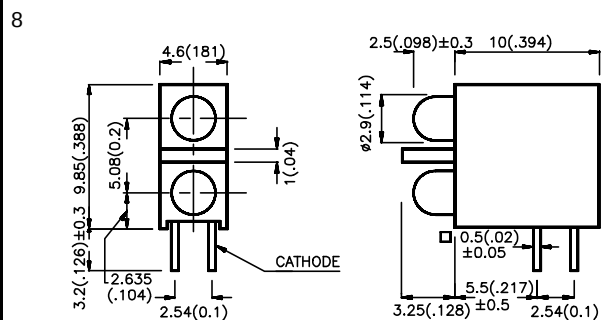
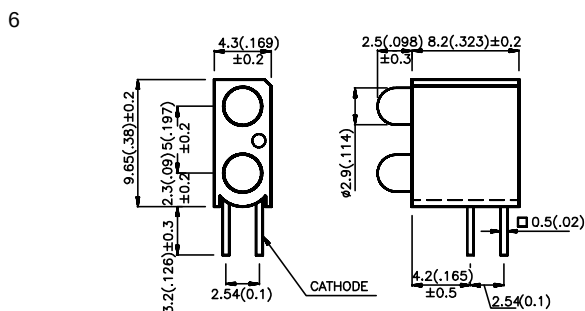
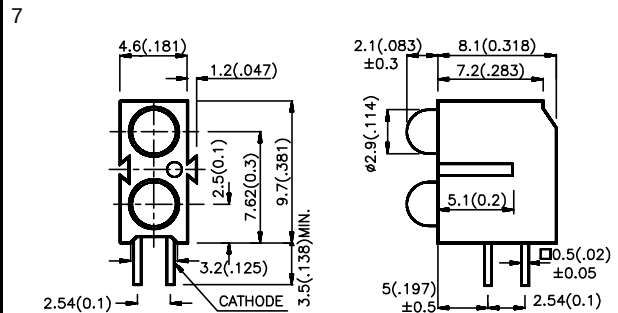
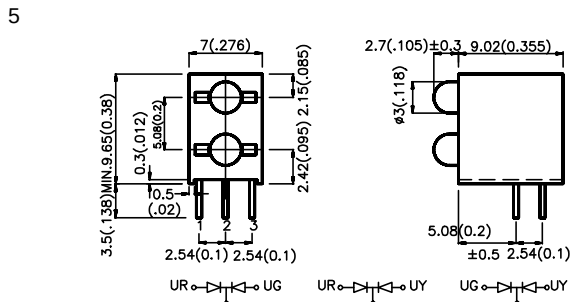
Housing LEDs

Shape	Part Number	Emitting Color	Emitting Material	Lens-Color	Wave Length (nm)	Luminous Intensity IF=10mA *20mA(mcd) Min. Max.	Viewing Angle	Figure No.
3mm Right Angle	NN1LUGR86M	Red	GaAsP/GaP	White Diffused	625	*8 - 40	60°	1
		Green	GaP		565	*8 - 40		
	NN1LUYR86M	Red	GaAsP/GaP	White Diffused	625	*8 - 40	60°	
		Yellow	GaAsP/GaP		590	*8 - 40		
	NN1LUGY86M	Green	GaP	White Diffused	565	*8 - 40	60°	
		Yellow	GaAsP/GaP		590	*8 - 40		
3mm Right Angle	VB1LUR32D-1	Red	GaAsP/GaP	Red Diffused	625	8 - 50	60°	2
	VB1LMR32D-1	Red	GaAlAs	Red Diffused	660	*100 - 300	60°	
	VB1LUG32D-1	Green	GaP	Green Diffused	565	8 - 32	60°	
	VB1LUY32D-1	Yellow	GaAsP/GaP	Yellow Diffused	590	8 - 32	60°	
3mm Right Angle	NK1LUR32D	Red	GaAsP/GaP	Red Diffused	625	8 - 50	60°	3
	NK1LMR32D	Red	GaAlAs	Red Diffused	660	*100 - 300	60°	
	NK1LUG32D	Green	GaP	Green Diffused	565	8 - 32	60°	
	NK1LUY32D	Yellow	GaAsP/GaP	Yellow Diffused	590	8 - 32	60°	
3mm Right Angle	NS1LUR32D	Red	GaAsP/GaP	Red Diffused	625	8 - 50	60°	4
	NS1LMR32D	Red	GaAlAs	Red Diffused	660	*100 - 300	60°	
	NS1LUG32D	Green	GaP	Green Diffused	565	8 - 32	60°	
	NS1LUY32D	Yellow	GaAsP/GaP	Yellow Diffused	590	8 - 32	60°	



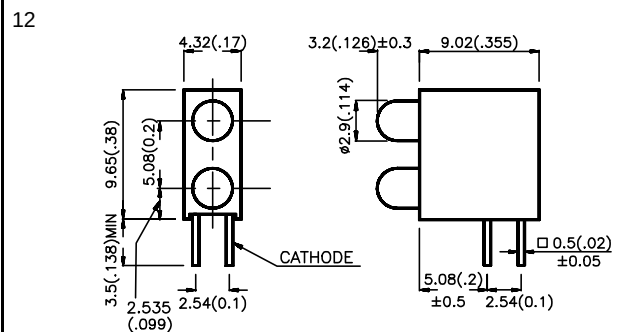
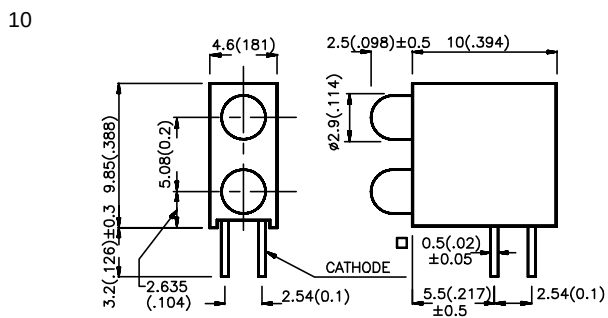
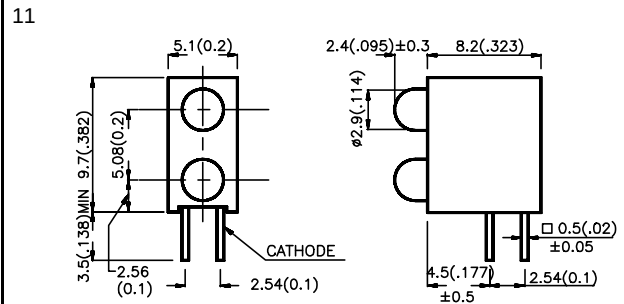
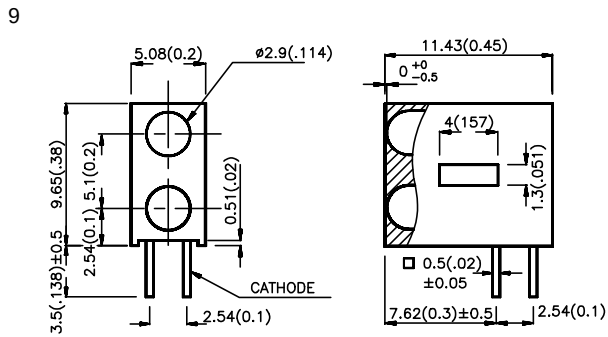
Housing LEDs

Shape	Part Number	Emitting Color	Emitting Material	Lens-Color	Wave Length (nm)	Luminous Intensity IF=10mA *20mA(mcd) Min. Max.	Viewing Angle	Figure No.
3mm Right Angle	VO2LUGR86M	Red	GaAsP/GaP	White Diffused	625	*8 - 40	60°	5
		Green	GaP		565	*8 - 40		
	VO2LUYR86M	Red	GaAsP/GaP	White Diffused	625	*8 - 40	60°	
		Yellow	GaAsP/GaP		590	*8 - 40		
	VO2LUGY86M	Green	GaP	White Diffused	565	*8 - 40	60°	
		Yellow	GaAsP/GaP		590	*8 - 40		
3mm Bi-level	NC2LUR32D	Red	GaAsP/GaP	Red Diffused	625	8 - 50	60°	6
	NC2LMR32D	Red	GaAlAs	Red Diffused	660	*100 - 300	60°	
	NC2LUG32D	Green	GaP	Green Diffused	565	8 - 32	60°	
	NC2LUY32D	Yellow	GaAsP/GaP	Yellow Diffused	590	8 - 32	60°	
3mm Bi-level	NE2LUR32D	Red	GaAsP/GaP	Red Diffused	625	8 - 50	60°	7
	NE2LMR32D	Red	GaAlAs	Red Diffused	660	*100 - 300	60°	
	NE2LUG32D	Green	GaP	Green Diffused	565	8 - 32	60°	
	NE2LUY32D	Yellow	GaAsP/GaP	Yellow Diffused	590	8 - 32	60°	
3mm Bi-level	NT2LUR32D	Red	GaAsP/GaP	Red Diffused	625	8 - 50	60°	8
	NT2LMR32D	Red	GaAlAs	Red Diffused	660	*100 - 300	60°	
	NT2LUG32D	Green	GaP	Green Diffused	565	8 - 32	60°	
	NT2LUY32D	Yellow	GaAsP/GaP	Yellow Diffused	590	8 - 32	60°	



Housing LEDs

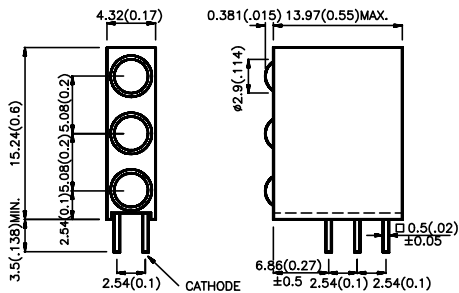
Shape	Part Number	Emitting Color	Emitting Material	Lens-Color	Wave Length (nm)	Luminous Intensity IF=10mA *20mA(mcd) Min. Max.	Viewing Angle	Figure No.
3mm BI-level	NU2LUR32D	Red	GaAsP/GaP	Red Diffused	625	8 - 50	60°	9
	NU2LMR32D	Red	GaAlAs	Red Diffused	660	*100 - 300	60°	
	NU2LUG32D	Green	GaP	Green Diffused	565	8 - 32	60°	
	NU2LUY32D	Yellow	GaAsP/GaP	Yellow Diffused	590	8 - 32	60°	
3mm BI-level	NV2LUR32D	Red	GaAsP/GaP	Red Diffused	625	8 - 50	60°	10
	NV2LMR32D	Red	GaAlAs	Red Diffused	660	*100 - 300	60°	
	NV2LUG32D	Green	GaP	Green Diffused	565	8 - 32	60°	
	NV2LUY32D	Yellow	GaAsP/GaP	Yellow Diffused	590	8 - 32	60°	
3mm BI-level	VF2LUR32D-2	Red	GaAsP/GaP	Red Diffused	625	8 - 50	60°	11
	VF2LMR32D-2	Red	GaAlAs	Red Diffused	660	*100 - 300	60°	
	VF2LUG32D-2	Green	GaP	Green Diffused	565	8 - 32	60°	
	VF2LUY32D-2	Yellow	GaAsP/GaP	Yellow Diffused	590	8 - 32	60°	
3mm BI-level	VG2LUR32D-2	Red	GaAsP/GaP	Red Diffused	625	8 - 50	60°	12
	VG2LMR32D-2	Red	GaAlAs	Red Diffused	660	*100 - 300	60°	
	VG2LUG32D-2	Green	GaP	Green Diffused	565	8 - 32	60°	
	VG2LUY32D-2	Yellow	GaAsP/GaP	Yellow Diffused	590	8 - 32	60°	



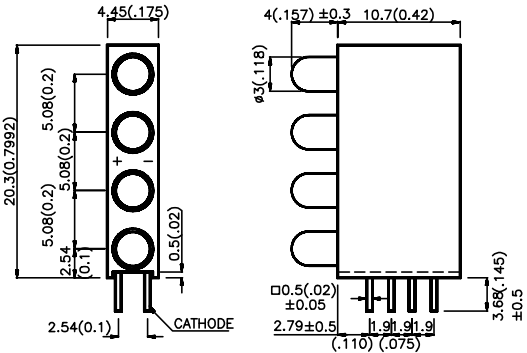
Housing LEDs

Shape	Part Number	Emitting Color	Emitting Material	Lens-Color	Wave Length (nm)	Luminous Intensity IF=10mA *20mA(mcd) Min. Max.	Viewing Angle	Figure No.
3mm Tri-level	VW3LHR32D	Red	GaP	Red Diffused	700	1.3 - 5	60°	13
	VW3LUR32D	Red	GaAsP/GaP	Red Diffused	625	8 - 50	60°	
	VW3LMR32D	Red	GaAlAs	Red Diffused	660	*100 - 300	60°	
	VW3LUO32D	Orange	GaAsP/GaP	Orange Diffused	625	8 - 50	60°	
	VW3LUG32D	Green	GaP	Green Diffused	565	8 - 32	60°	
	VW3LUY32D	Yellow	GaAsP/GaP	Yellow Diffused	590	8 - 32	60°	
3mm Tri-level	VY3LHR32D	Red	GaP	Red Diffused	700	1.3 - 5	60°	14
	VY3LUR32D	Red	GaAsP/GaP	Red Diffused	625	8 - 50	60°	
	VY3LMR32D	Red	GaAlAs	Red Diffused	660	*100 - 300	60°	
	VY3LUO32D	Orange	GaAsP/GaP	Orange Diffused	625	8 - 50	60°	
	VY3LUG32D	Green	GaP	Green Diffused	565	8 - 32	60°	
	VY3LUY32D	Yellow	GaAsP/GaP	Yellow Diffused	590	8 - 32	60°	
3mm Quad-level	VV4LUR40D	Red	GaAsP/GaP	Red Diffused	625	8 - 50	60°	15
	VV4LMR40D	Red	GaAlAs	Red Diffused	660	*100 - 300	60°	
	VV4LUG40D	Green	GaP	Green Diffused	565	8 - 32	60°	
	VV4LUY40D	Yellow	GaAsP/GaP	Yellow Diffused	590	8 - 32	60°	
3.4mm Right Angle	VB1LUR41D	Red	GaAsP/GaP	Red Diffused	625	12.5 - 50	60°	16
	VB1LMR41D	Red	GaAlAs	Red Diffused	660	*70 - 200	60°	
	VB1LUG41D	Green	GaP	Green Diffused	565	8 - 32	60°	
	VB1LUY41D	Yellow	GaAsP/GaP	Yellow Diffused	590	8 - 32	60°	

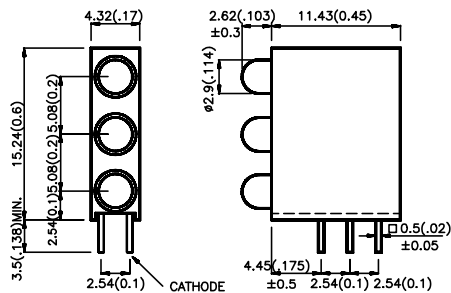
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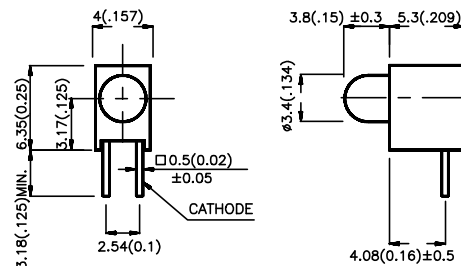
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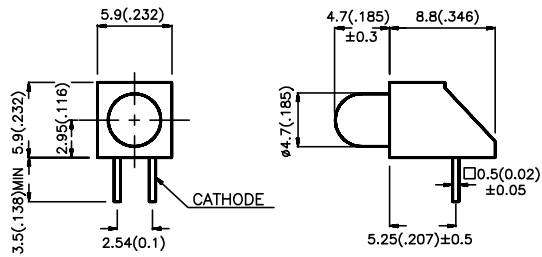
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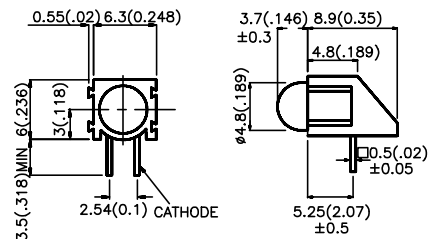
Housing LEDs

Shape	Part Number	Emitting Color	Emitting Material	Lens-Color	Wave Length (nm)	Luminous Intensity IF=10mA *20mA(mcd) Min. Max.	Viewing Angle	Figure No.
4.7mm Right Angle	VR1LUR69D	Red	GaAsP/GaP	Red Diffused	625	12.5 - 80	60°	17
	VR1LMR69D	Red	GaAlAs	Red Diffused	660	*100 - 500	60°	
	VR1LUG69D	Green	GaP	Green Diffused	565	5 - 32	60°	
	VR1LUY69D	Yellow	GaAsP/GaP	Yellow Diffused	590	5 - 32	60°	
4.8mm Right Angle	VB1LUR48D-1/-2 VB1LUR48D-3/-4	Red	GaAsP/GaP	Red Diffused	625	8 - 32	60°	18
	VB1LMR48D-1/-2 VB1LMR48D-3/-4	Red	GaAlAs	Red Diffused	660	*100 - 300	60°	
	VB1LUG48D-1/-2 VB1LUG48D-3/-4	Green	GaP	Green Diffused	565	5 - 32	60°	
	VB1LUY48D-1/-2 VB1LUY48D-3/-4	Yellow	GaAsP/GaP	Yellow Diffused	590	5 - 32	60°	
4.8mm Right Angle	VD1LUR48D-1	Red	GaAsP/GaP	Red Diffused	625	8 - 32	60°	19
	VD1LMR48D-1	Red	GaAlAs	Red Diffused	660	*100 - 300	60°	
	VD1LUG48D-1	Green	GaP	Green Diffused	565	5 - 32	60°	
	VD1LUY48D-1	Yellow	GaAsP/GaP	Yellow Diffused	590	5 - 32	60°	
4.8mm Right Angle	VT1LUR48D-1	Red	GaAsP/GaP	Red Diffused	625	8 - 32	60°	20
	VT1LMR48D-1	Red	GaAlAs	Red Diffused	660	*100 - 300	60°	
	VT1LUG48D-1	Green	GaP	Green Diffused	565	5 - 32	60°	
	VT1LUY48D-1	Yellow	GaAsP/GaP	Yellow Diffused	590	5 - 32	60°	

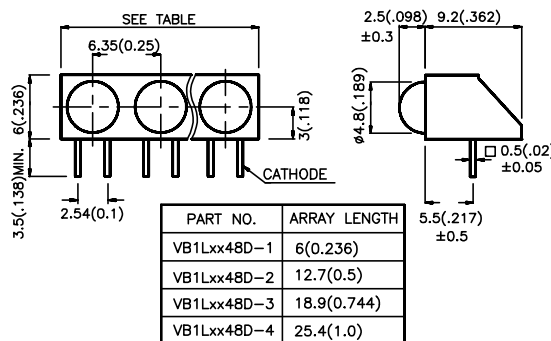
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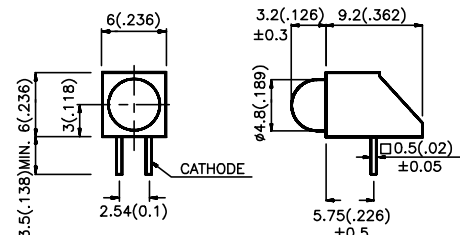
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18



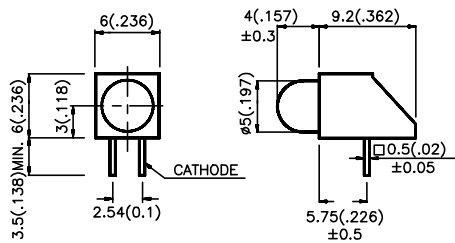
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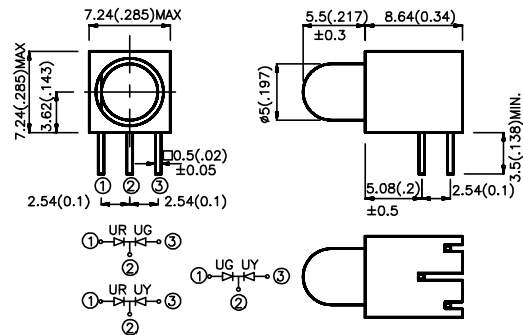
Housing LEDs

Shape	Part Number	Emitting Color	Emitting Material	Lens-Color	Wave Length (nm)	Luminous Intensity IF=10mA *20mA(mcd) Min. Max.	Viewing Angle	Figure No.
5mm Right Angle	VB1LUR50D-1	Red	GaAsP/GaP	Red Diffused	625	12.5 - 80	60°	21
	VB1LMR50D-1	Red	GaAlAs	Red Diffused	660	*100 - 500	60°	
	VB1LUG50D-1	Green	GaP	Green Diffused	565	5 - 32	60°	
	VB1LUY50D-1	Yellow	GaAsP/GaP	Yellow Diffused	590	5 - 32	60°	
5mm Right Angle	VB1LUGR59M-1	Red	GaAsP/GaP	White Diffused	625	*20 - 90	60°	22
		Green	GaP		565	*20 - 70		
	VB1LUYR59M-1	Red	GaAsP/GaP	White Diffused	625	*20 - 90	60°	
		Yellow	GaAsP/GaP		590	*20 - 60		
	VB1LUGY59M-1	Green	GaP	White Diffused	565	*20 - 70	60°	
		Yellow	GaAsP/GaP		590	*20 - 60		
5mm Right Angle	VM1LUGR59M-1	Red	GaAsP/GaP	White Diffused	625	*20 - 90	60°	23
		Green	GaP		565	*20 - 70		
	VM1LUYR59M-1	Red	GaAsP/GaP	White Diffused	625	*20 - 90	60°	
		Yellow	GaAsP/GaP		590	*20 - 60		
	VM1LUGY59M-1	Green	GaP	White Diffused	565	*20 - 70	60°	
		Yellow	GaAsP/GaP		590	*20 - 60		
4.8mm Bi-level	VC2LUR48D-2	Red	GaAsP/GaP	Red Diffused	625	8 - 32	60°	24
	VC2LMR48D-2	Red	GaAlAs	Red Diffused	660	*100 - 300	60°	
	VC2LUG48D-2	Green	GaP	Green Diffused	565	5 - 32	60°	
	VC2LUY48D-2	Yellow	GaAsP/GaP	Yellow Diffused	590	5 - 32	60°	

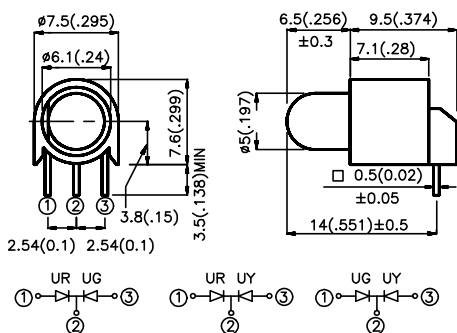
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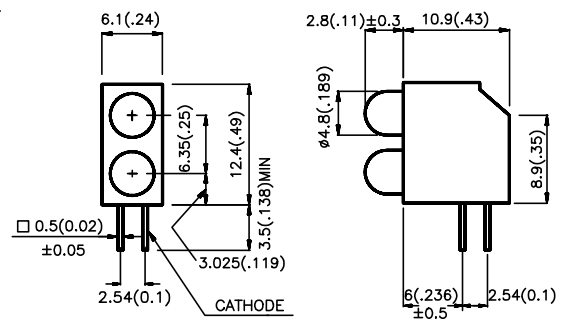
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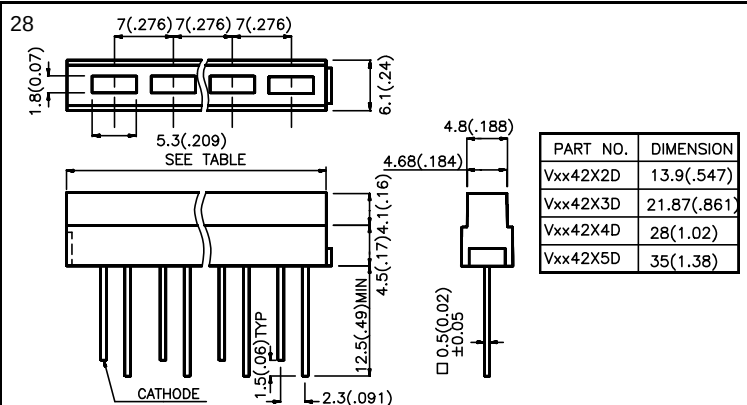
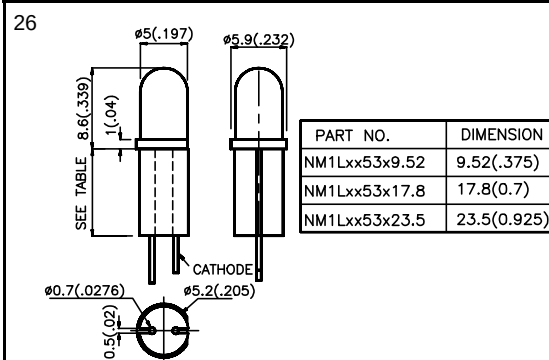
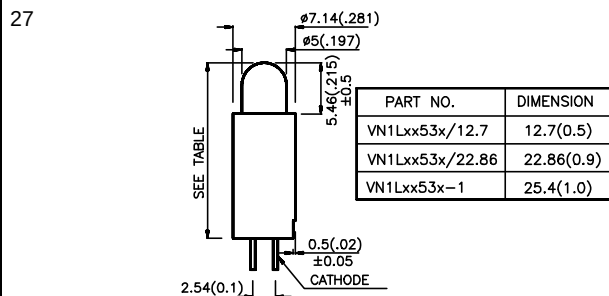
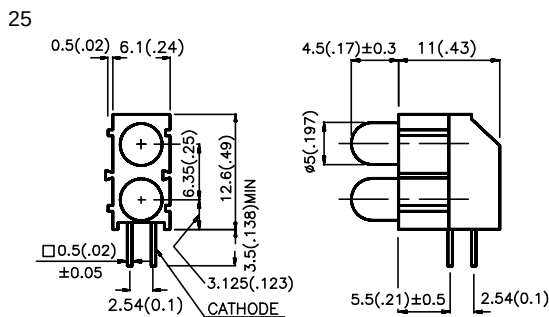


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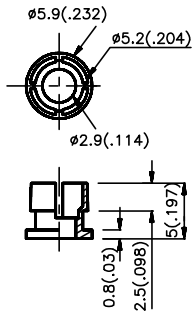
Housing LEDs

Shape	Part Number	Emitting Color	Emitting Material	Lens-Color	Wave Length (nm)	Luminous Intensity IF=10mA *20mA(mcd) Min. Max.	Viewing Angle	Figure No.
5mm BI-level	VH2LUR50D-2	Red	GaAsP/GaP	Red Diffused	625	12.5 - 80	60°	25
	VH2LMR50D-2	Red	GaAlAs	Red Diffused	660	*100 - 500	60°	
	VH2LUG50D-2	Green	GaP	Green Diffused	565	5 - 32	60°	
	VH2LUY50D-2	Yellow	GaAsP/GaP	Yellow Diffused	590	5 - 32	60°	
5mm With Spacer	NM1LUR53D9.52 17.8 23.5	Red	GaAsP/GaP	Red Diffused	625	12.5 - 80	60°	26
	NM1LMR53D9.52 17.8 23.5	Red	GaAlAs	Red Diffused	660	*100 - 300	60°	
	NM1LUG53D9.52 17.8 23.5	Green	GaP	Green Diffused	565	5 - 32	60°	
	NM1LMG53D9.52 17.8 23.5	Green	GaP	Green Diffused	565	*20 - 60	60°	
	NM1LUY53D9.52 17.8 23.5	Yellow	GaAsP/GaP	Yellow Diffused	590	5 - 32	60°	
5mm With Spacer	VN1LUR53D/12.7 /22.86 -1	Red	GaAsP/GaP	Red Diffused	625	12.5 - 80	60°	27
	VN1LMR53D/12.7 /22.86 -1	Red	GaAlAs	Red Diffused	660	*100 - 300	60°	
	VN1LUG53D/12.7 /22.86 -1	Green	GaP	Green Diffused	565	5 - 32	60°	
	VN1LMG53D/12.7 /22.86 -1	Green	GaP	Green Diffused	565	*20 - 60	60°	
	VN1LUY53D/12.7 /22.86 -1	Yellow	GaAsP/GaP	Yellow Diffused	590	5 - 32	60°	
1.8x5.3mm 2,3,4,5 Elements	VHR42X2D VHR42X3D VHR42X4D VHR42X5D	Red	GaP	Red Diffused	700	0.3 - 1	110°	28
	VUR42X2D VUR42X3D VUR42X4D VUR42X5D	Red	GaAsP/GaP	Red Diffused	625	2 - 5	110°	
	VUG42X2D VUG42X3D VUG42X4D VUG42X5D	Green	GaP	Green Diffused	565	1 - 3	110°	
	VUY42X2D VUY42X3D VUY42X4D VUY42X5D	Yellow	GaAsP/GaP	Yellow Diffused	590	1 - 3	110°	

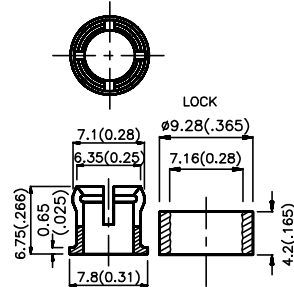


Housing for LEDs

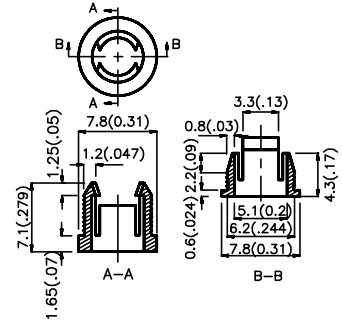
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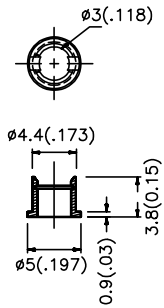
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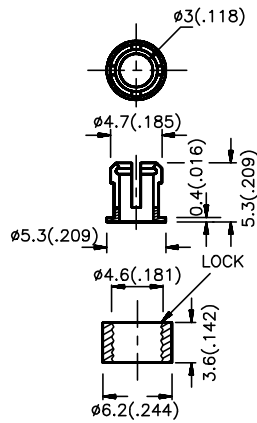
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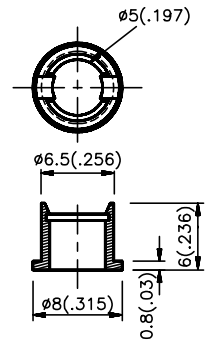
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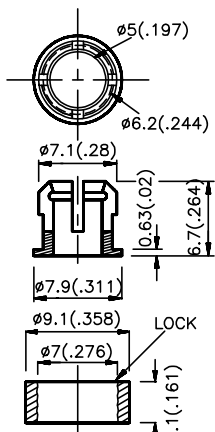
RTC-32



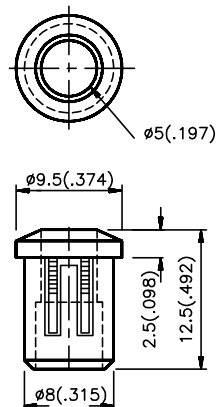
RTC-51



RTC-52



RTF-5010



RTF-5020

