



LED Lamps

STANDARD BRIGHT

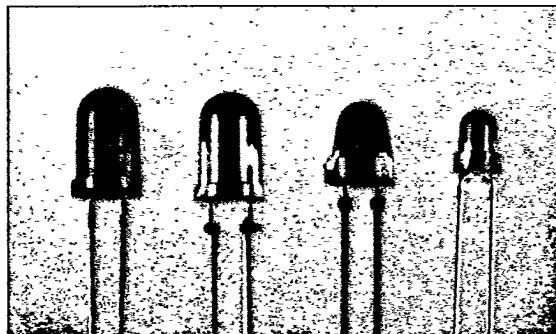
T1¾

AND113(P) Series
AND114(P) Series

T1

AND163 Series
AND164 Series
AND123 Series
AND124 Series

T-41-21



FEATURES

- Low power requirement
- Stand-off or flush-mount
- All plastic molded lens
- Choice of 4 colors
 - GaP-red
 - GaP-green
 - GaAsP-yellow
 - GaAsP-orange

AND113 and 114 Series - T1¾ Package - Standard Bright

Part Number	Color		Lens Description	Axial Luminous Intensity (mcd)		Test Condition (I _F -mA)	Viewing Angle 2θ½ (deg)
	Led	Lens		Min.	Typ.		
AND113R	Red	Red	Clear	3.5	7	15	50
AND114R	Red	Red	Diffused	1.5	3	15	80
AND113S	Red	Red	Clear	12	25	15	50
AND114S	Red	Red	Diffused	4	8	15	80
AND113G	Green	Green	Clear	15	30	15	50
AND114G	Green	Green	Diffused	4	8	15	80
AND113Y	Yellow	Yellow	Clear	10	20	15	50
AND114Y	Yellow	Yellow	Diffused	3	6	15	80
AND113O	Orange	Orange	Clear	10	20	15	50
AND114O	Orange	Orange	Diffused	3	6	15	80

AND113P and 114P Series - T1¾ Package - Standard Bright Flush Mount (No Standoffs)

Part Number	Color		Lens Description	Axial Luminous Intensity (mcd)		Test Condition (I _F -mA)	Viewing Angle 2θ½ (deg)
	Led	Lens		Min.	Typ.		
AND113RP	Red	Red	Clear	3.5	7	15	50
AND114RP	Red	Red	Diffused	1.5	3	15	80
AND113GP	Green	Green	Clear	15	30	15	50
AND114GP	Green	Green	Diffused	4	8	15	80
AND113YP	Yellow	Yellow	Clear	10	20	15	50
AND114YP	Yellow	Yellow	Diffused	3	6	15	80
AND113OP	Orange	Orange	Clear	10	20	15	50
AND114OP	Orange	Orange	Diffused	3	6	15	80

AND123 and 124 Series - T1 Package - Standard Bright

Part Number	Color		Lens Description	Axial Luminous Intensity (mcd)		Test Condition (I _F -mA)	Viewing Angle 2θ½ (deg)
	Led	Lens		Min.	Typ.		
AND123R	Red	Red	Clear	1.5	3.5	10	60
AND124R	Red	Red	Diffused	1	2.5	10	70
AND123G	Green	Green	Clear	5	10	10	60
AND124G	Green	Green	Diffused	2.5	5	10	70
AND123Y	Yellow	Yellow	Clear	2.5	5	10	60
AND124Y	Yellow	Yellow	Diffused	2	4	10	70



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AND163 and 164 Series - T1 Package - Standard Bright

Part Number	Color		Lens Description	Axial Luminous Intensity (mcd)		Test Condition (I _F -mA)	Viewing Angle 2θ½ (deg)
	Led	Lens		Min.	Typ.		
AND163S	Red	Red	Clear	20	40	20	10
AND164S	Red	Red	Diffused	10	20	20	25
AND163G	Green	Green	Clear	15	30	20	10
AND164G	Green	Green	Diffused	7.5	15	20	25
AND163Y	Yellow	Yellow	Clear	10	20	20	10
AND164Y	Yellow	Yellow	Diffused	5	10	20	25
AND163O	Orange	Orange	Clear	20	40	20	10
AND164O	Orange	Orange	Diffused	10	20	20	25

Absolute Maximum Ratings (T_A = 25°C)

Characteristics		Rating				Unit
		Red	Green	Yellow	Orange	
Forward Current (DC)						
AND113/114(P), AND123/124	I _F	20	25	25	25	mA
AND163/164	I _F	25	25	25	25	mA
AND113S/114S	I _F	25	—	—	—	mA
Reverse Voltage	V _R	4	4	4	4	V
Power Dissipation						
AND113/114(P) Series	P _D	65	70	70	70	mW
AND163/164 Series	P _D	70	70	70		mW
AND123/124 Series	P _D	65	70	70		mW
AND113S/114S	P _D	70	—	—	—	mW
Operating Temperature Range	T _{OPR}	—20 to +75				°C
Storage Temperature Range	T _{STG}	—30 to +100				°C

Electro-Optical Characteristics (T_A = 25°C)

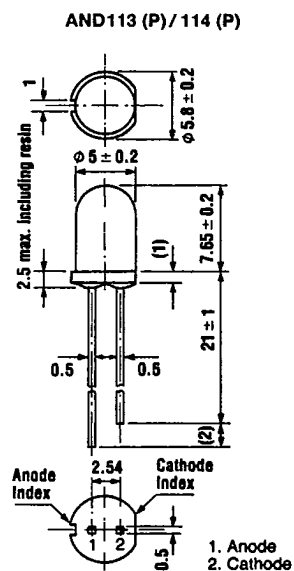
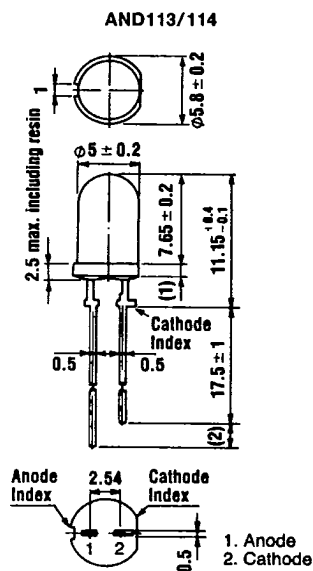
Characteristics	Symbol	Test Condition	Red			Green			Yellow			Orange			Units
			Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
Forward Voltage	V _F	I _F = 20mA	2.1	2.8	-	2.1	2.8	-	2.1	2.8	-	2.1	2.8	-	V
Reverse Current	I _R	V _R = 4V	-	-	5	-	-	5	-	-	100	-	-	100	μA
Peak Emission Wavelength															
AND113/114(P), AND123/124	λ _P	I _F = 15mA	-	-	700	-	-	565	-	-	585	-	-	610	nm
AND163/164, 113S/114S	λ _P	I _F = 15mA	-	-	635	-	-	565	-	-	585	-	-	610	nm
Spectral Line Half Width															
AND113/114(P), AND123/124	Δλ	I _F = 15mA	-	-	100	-	-	25	-	-	32	-	-	35	nm
AND163/164, 113S/114S	Δλ	I _F = 15mA	-	-	40	-	-	25	-	-	32	-	-	35	nm



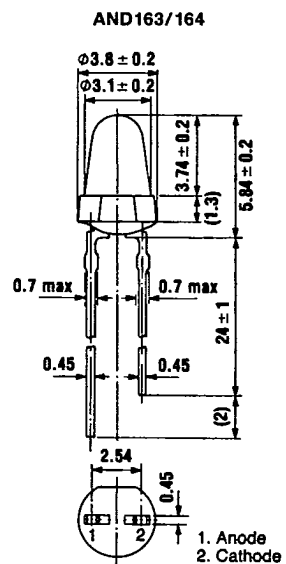
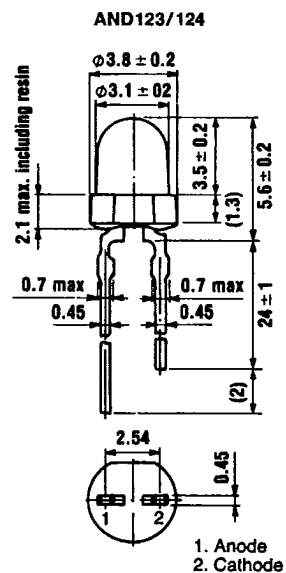
PURDY (WM J) / A N D DIV

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Outline Dimension (in millimeters)



Outline Dimension (in millimeters)





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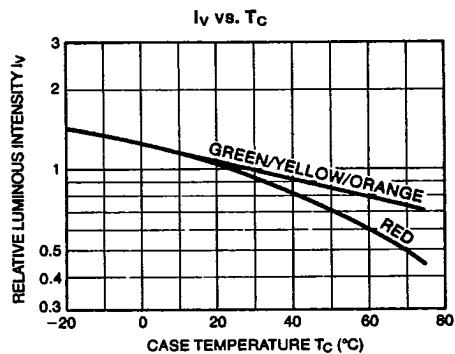
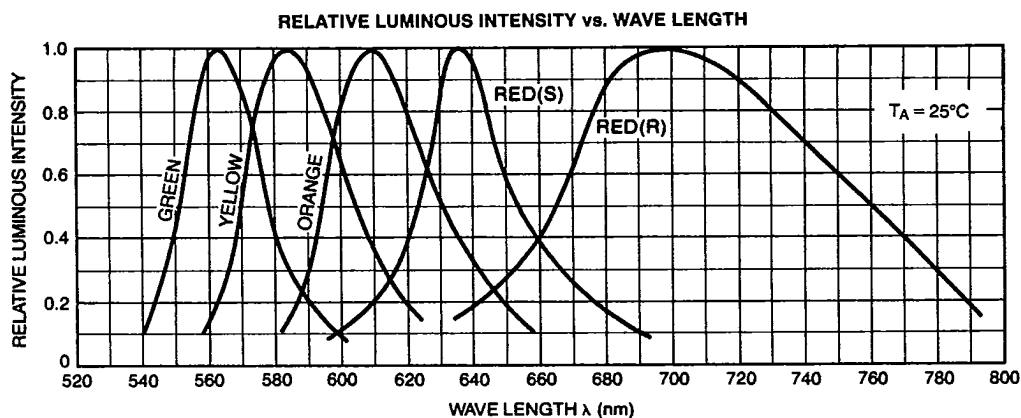
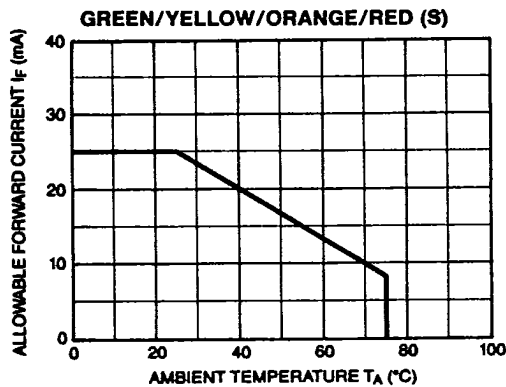
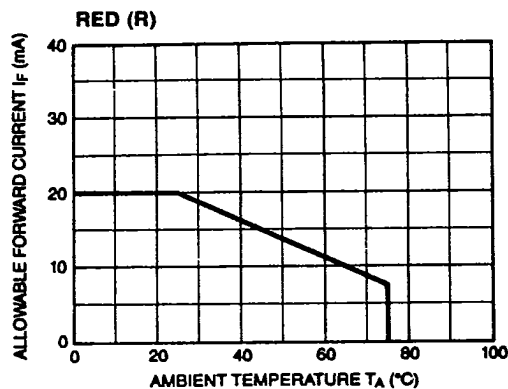
T1 3/4

AND113(P) Series
AND114(P) Series
AND123 Series
AND124 Series

T1

AND163 Series
AND164 Series

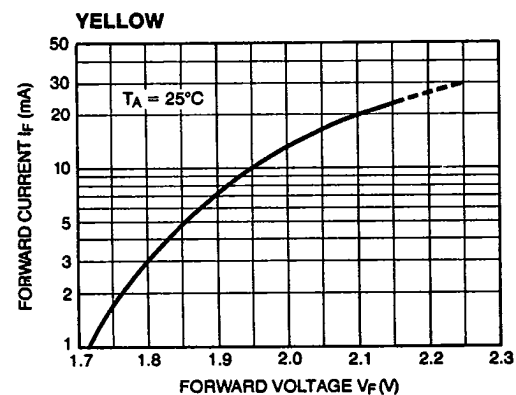
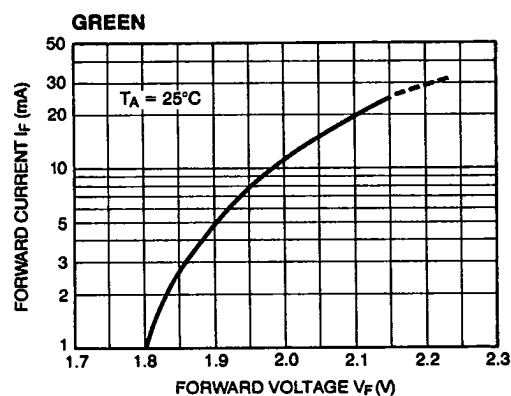
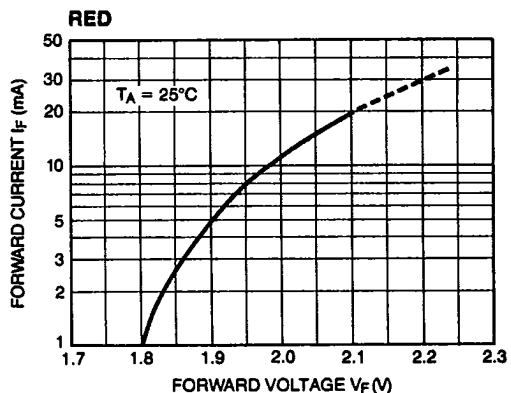
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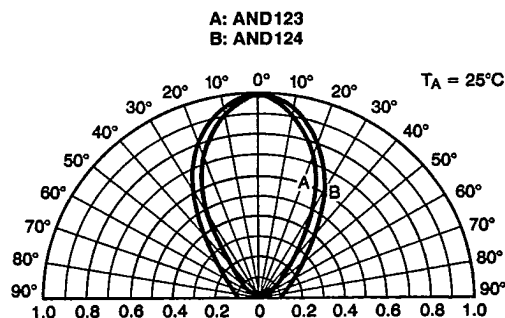
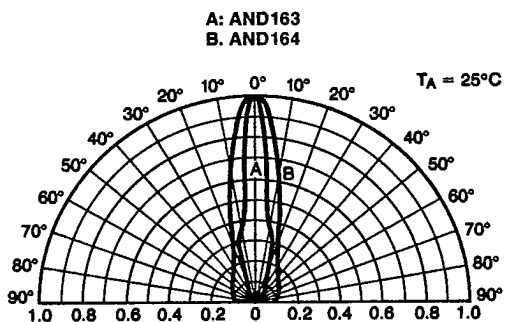
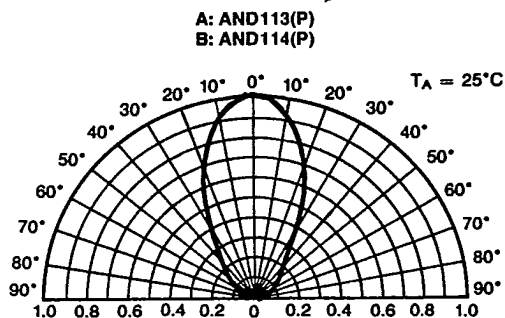


PURDY (WM J) / A N D DIV T-41-21

I_F vs. V_F



Radiation Pattern





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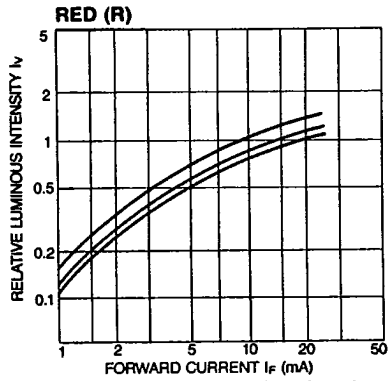
T1 $\frac{3}{4}$ AND113(P) Series
AND114(P) Series

T1

AND123 Series
AND124 Series
AND163 Series
AND164 Series

PURDY (WM J) / A N D D I V

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 I_V vs. I_F  I_V vs. V_F 