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Data Sheet

20mA InGaN White-EW3528D- 0201-0558

Features:

- > High brightness surface mount LED.
- > 120° viewing angle.
- > Small package outline (LxWxH) of 3.2 x 2.8 x 1.8mm.
- > Qualified according to JEDEC moisture sensitivity Level 2.
- > Compatible to IR reflow soldering.
- > Environmental friendly; RoHS compliance.

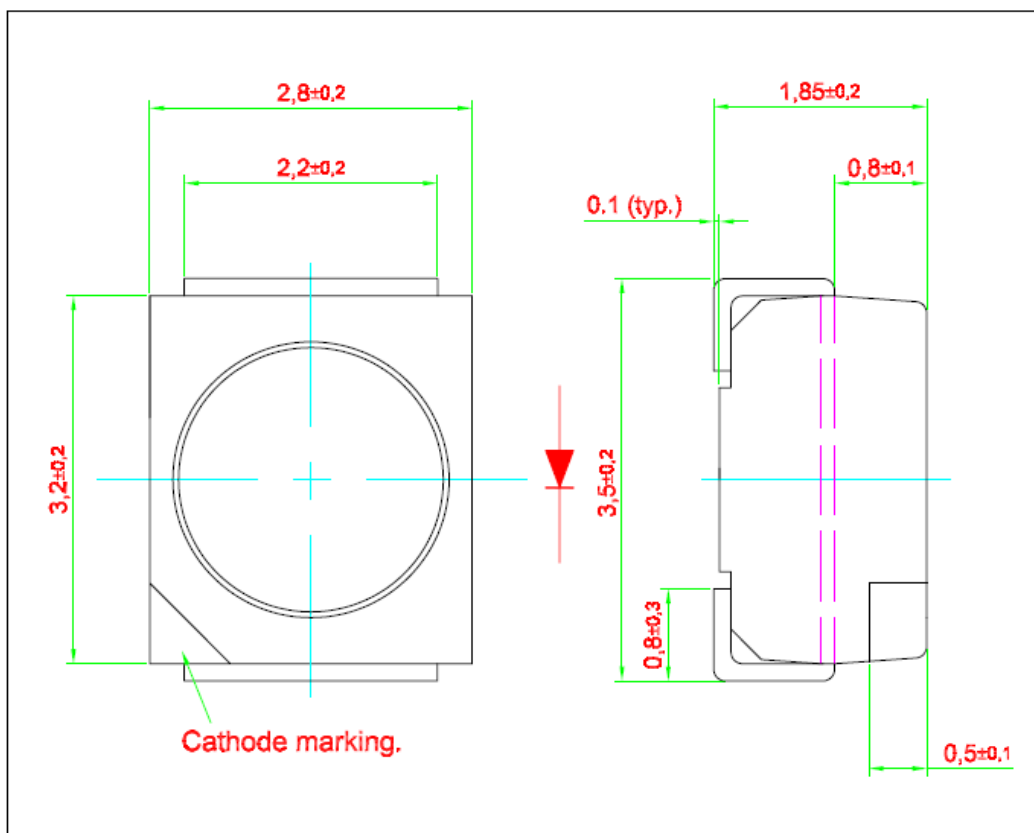


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Package Outline Dimensions



Material

	Material
Lead-frame	Cu Alloy With Ag Plating.
Package	High Temperature Resistant Plastic, PPA.
Encapsulant	Silicone Resin
Soldering Leads	Ag Plating

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Optical Characteristics at Tj=25°C

Part Number	Color	Luminous Intensity @ 20mA IV (mcd)			Viewing Angle
		Min	Typ.	Max	
EW3528D-0201-XbXc-0558	White	2400.0	2600.0	2800.0	120°

1. Luminous flux is measured with an accuracy of $\pm 11\%$.
2. Wavelength binning is carried for all units as per the wavelength-binning table. Only one wavelength group is allowed for each reel.
3. Color binning is carrier for all units as per the color binning table. Only one color group is allowed for each reel.
4. High color rendering Index (CRI). Minimum CRI of 70.

Electrical Characteristics at Tj=25°C

Part Number	Vf @ If=20mA		
	Min. (V)	Typ. (V)	Max. (V)
EW3528D-0201-XbXc-0558	2.9	3.2	3.5

Forward voltage, Vf is measured with a current pulse of 1 ms and an accuracy of ± 0.1 V.

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Absolute Maximum Ratings

	Maximum Value	Unit
DC forward current.	30	mA
Peak pulse current	100	mA
Reverse voltage.	5	V
LED junction temperature.	125	°C
Operating temperature.	-40 ... +100	°C
Storage temperature.	-40 ... +100	°C
ESD Threshold (HBM)	500	V
Power dissipation (at room temperature)	80	mW

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Luminous Intensity Group at Tj=25°C.

Bin	Luminous Intensity @ 20mA IV (mcd)	
	Min	Max
Xb	2400.0	2600.0
Xc	2600.0	2800.0

Vf Bining

Vf Bin	Forward Voltage (V)
V1	2.90...3.00
V2	3.00...3.10
V3	3.10...3.20
V4	3.20...3.30
V5	3.30...3.40
V6	3.40...3.50

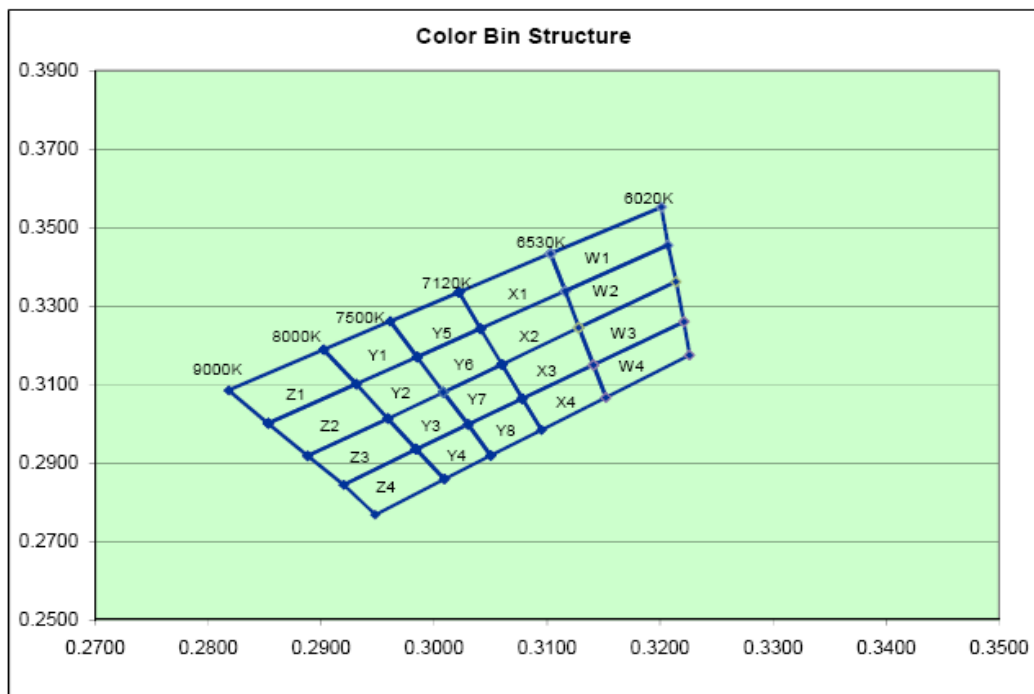
Forward voltage, Vf is measured with an accuracy of ± 0.1 V.

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Color bin structure



Chromaticity coordinate groups are measured with an accuracy of ± 0.01 .

Bin		1	2	3	4
Z1	Cx	0.2818	0.2853	0.2931	0.2902
	Cy	0.3085	0.3001	0.3101	0.3189
Z2	Cx	0.2853	0.2888	0.2959	0.2931
	Cy	0.3001	0.2918	0.3013	0.3101
Z3	Cx	0.2888	0.2920	0.2984	0.2959
	Cy	0.2918	0.2844	0.2935	0.3013
Z4	Cx	0.2920	0.2948	0.3009	0.2984
	Cy	0.2844	0.2768	0.2859	0.2935
Y1	Cx	0.2902	0.2931	0.2985	0.2961
	Cy	0.3189	0.3101	0.3170	0.3261
Y2	Cx	0.2931	0.2959	0.3008	0.2985
	Cy	0.3101	0.3013	0.3080	0.3170
Y3	Cx	0.2959	0.2984	0.3030	0.3008
	Cy	0.3013	0.2935	0.2998	0.3080
Y4	Cx	0.2984	0.3009	0.3050	0.3030
	Cy	0.2935	0.2859	0.2919	0.2998

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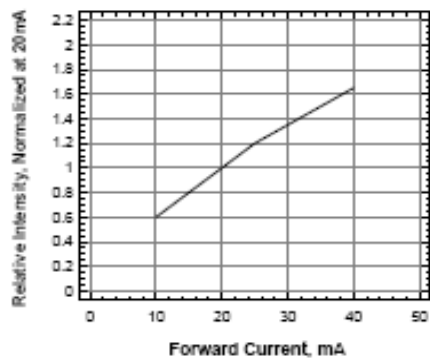
Bin		1	2	3	4
Y5	Cx	0.2961	0.2985	0.3041	0.3022
	Cy	0.3261	0.3170	0.3242	0.3335
Y6	Cx	0.2985	0.3008	0.3060	0.3041
	Cy	0.3170	0.3080	0.3151	0.3242
Y7	Cx	0.3008	0.3030	0.3078	0.3060
	Cy	0.3080	0.2998	0.3064	0.3151
Y8	Cx	0.3030	0.3050	0.3095	0.3078
	Cy	0.2998	0.2919	0.2984	0.3064
X1	Cx	0.3022	0.3041	0.3116	0.3103
	Cy	0.3335	0.3242	0.3338	0.3434
X2	Cx	0.3041	0.3060	0.3128	0.3116
	Cy	0.3242	0.3151	0.3245	0.3338
X3	Cx	0.3060	0.3078	0.3141	0.3128
	Cy	0.3151	0.3064	0.3150	0.3245
X4	Cx	0.3078	0.3095	0.3152	0.3141
	Cy	0.3064	0.2984	0.3067	0.3150
W1	Cx	0.3103	0.3116	0.3207	0.3201
	Cy	0.3434	0.3338	0.3455	0.3552
W2	Cx	0.3116	0.3128	0.3214	0.3207
	Cy	0.3338	0.3245	0.3362	0.3455
W3	Cx	0.3128	0.3141	0.3221	0.3214
	Cy	0.3245	0.3150	0.3260	0.3362
W4	Cx	0.3141	0.3152	0.3226	0.3221
	Cy	0.3150	0.3067	0.3175	0.3260

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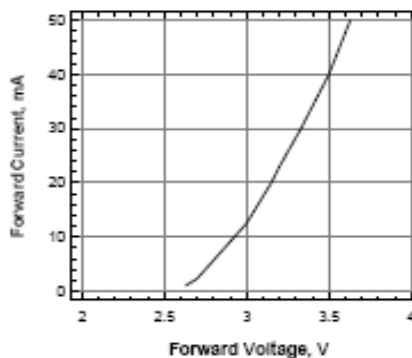
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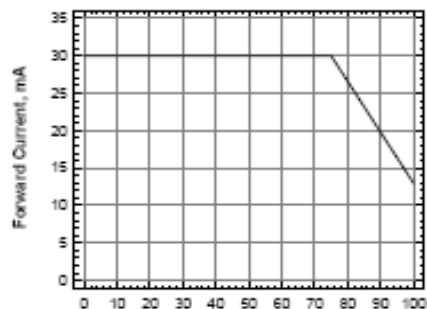
Relative Intensity Vs Forward Current



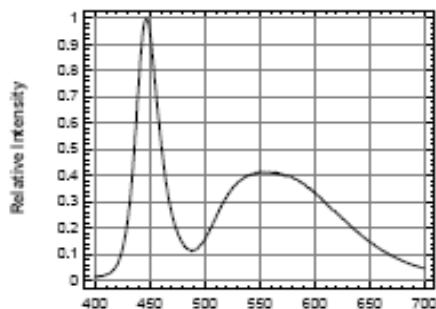
Forward Current Vs Forward Voltage



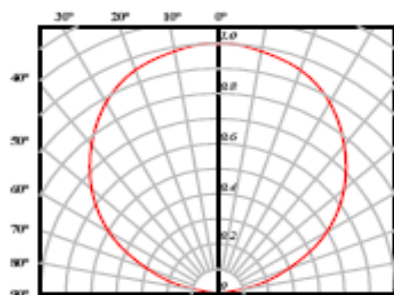
Maximum Forward Current Vs Ambient Temperature



Relative Intensity Vs Wavelength



Radiation Pattern

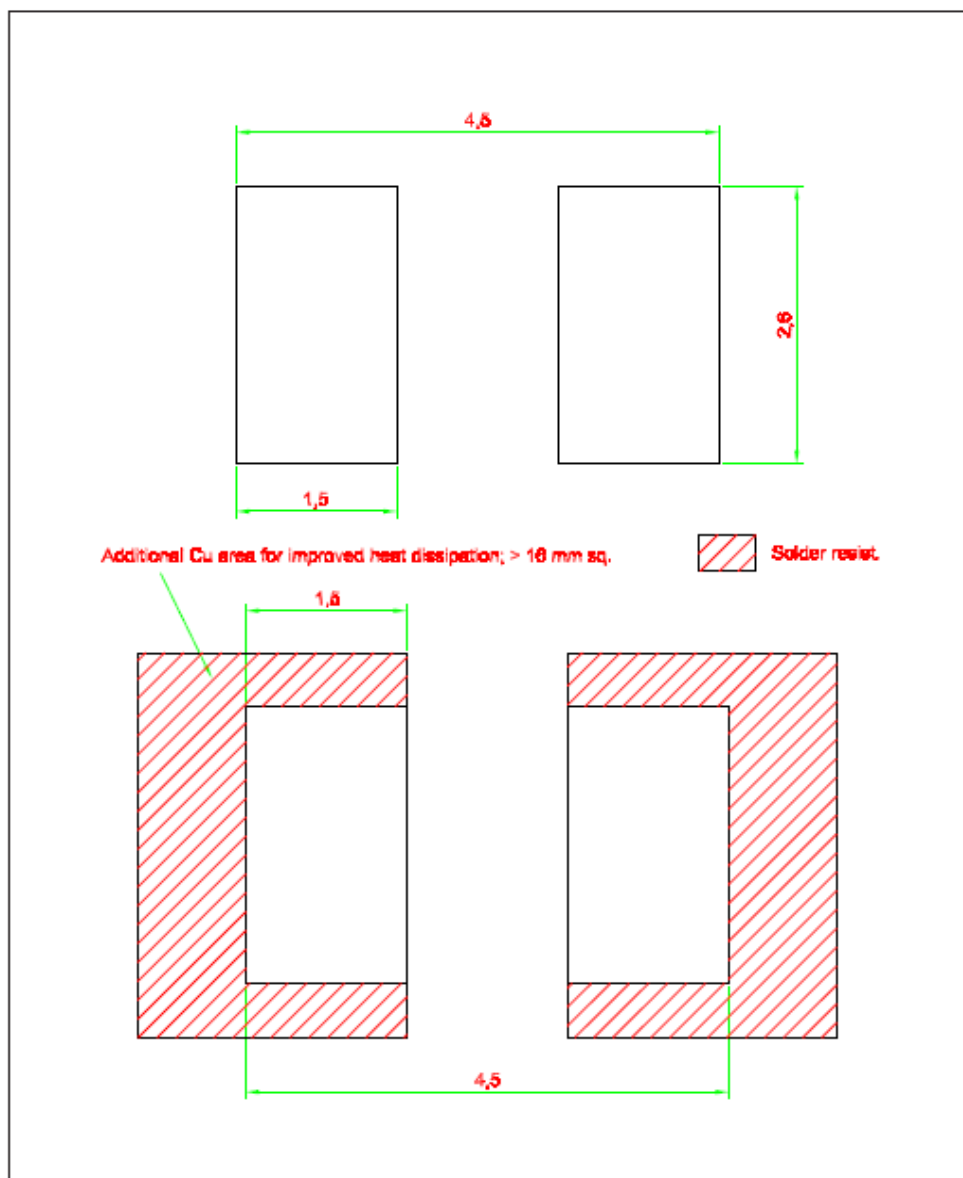


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Recommended Solder Pad



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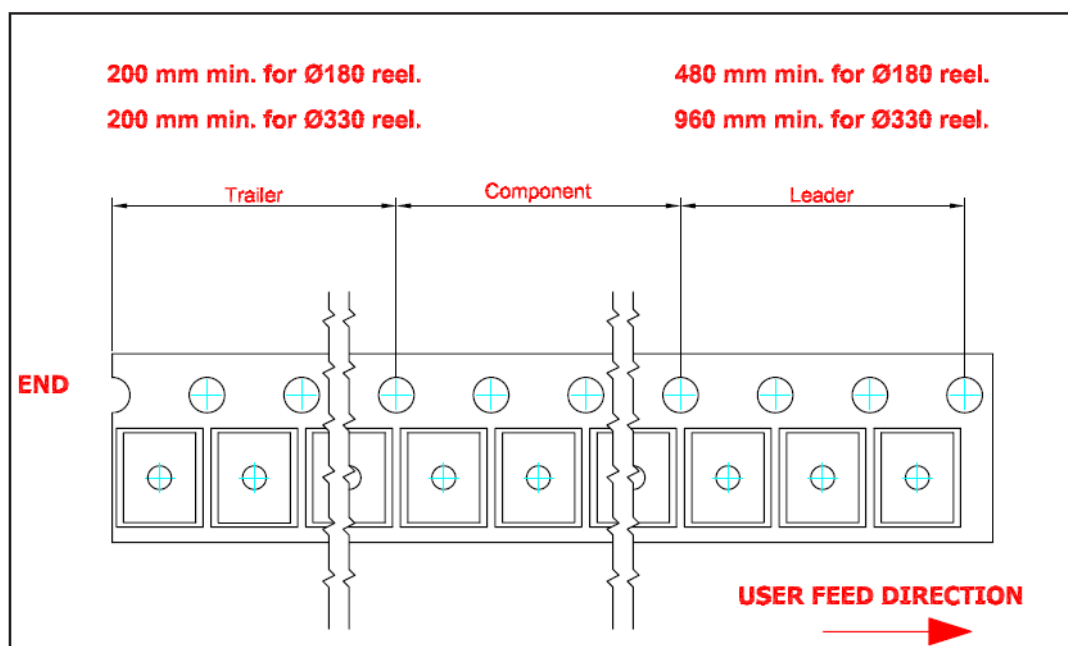
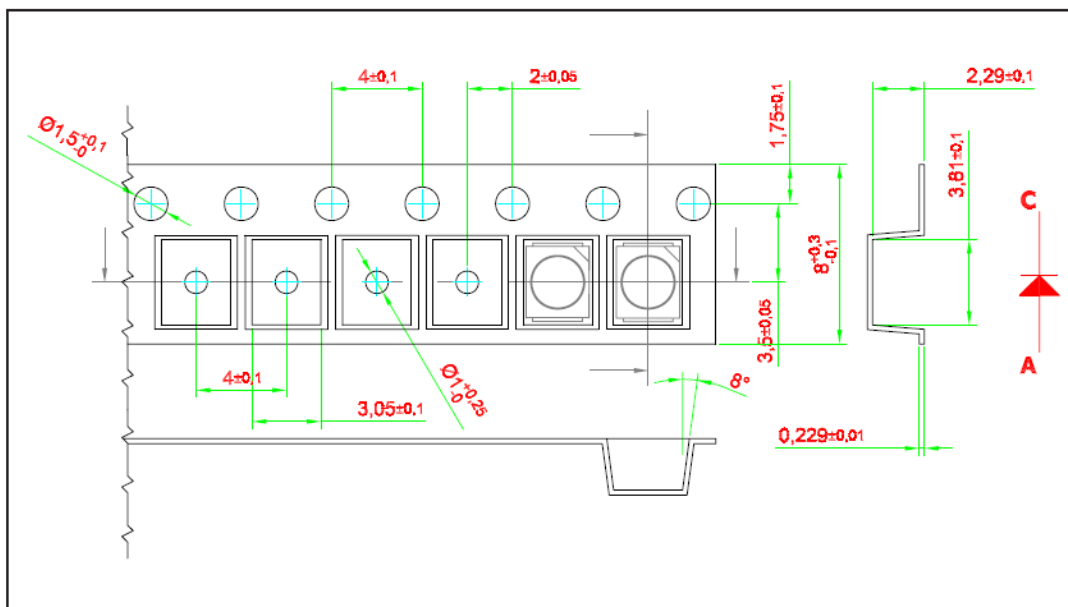
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Taping And Orientation

Reels come in quantity of 2000 units.

Reel diameters are 180 mm.

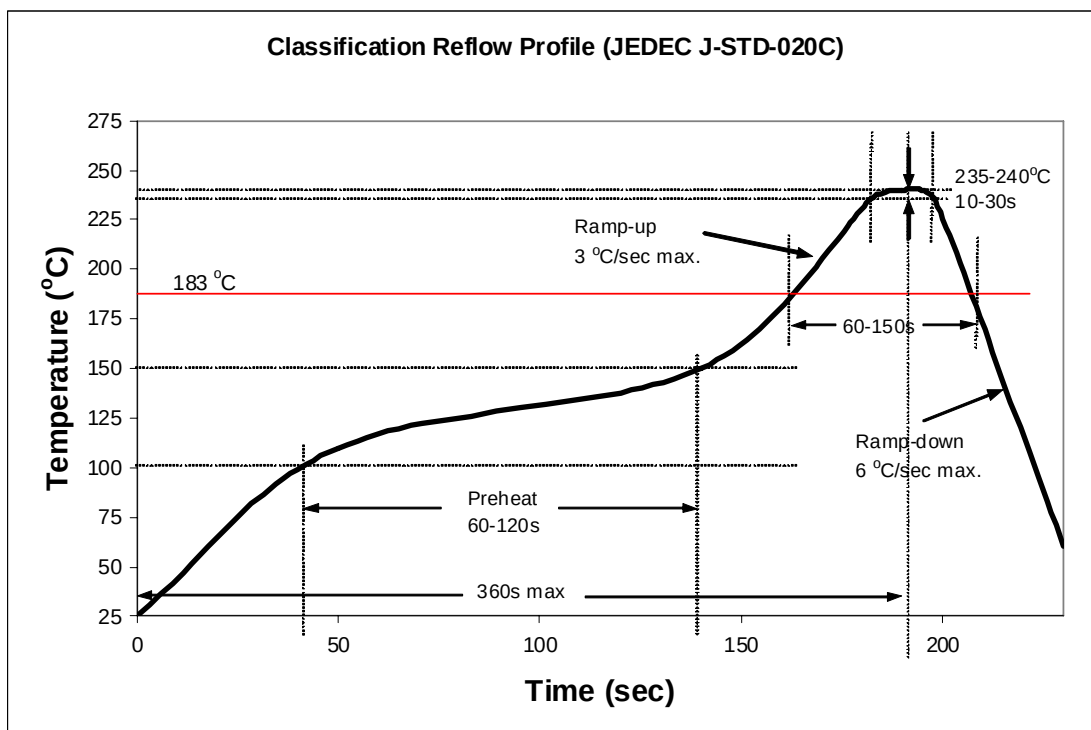


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Recommended Sn-Pb IR-Reflow Soldering Profile



Recommended Pb Free IR-Reflow Soldering Profile.

