

DomiPlus[™]

With the intense colors that seem to glow with energy and its significant brightness, DomiPlus[™] white LED is a highly reliable design device. Its dynamic nature makes it perfect choice for lighthing applications, office and home applications and standard industrial applications.



Features:

- > Super high brightness surface mount LED
- > 120° viewing angle.
- > Compact package outline (LxW) of 3.5 x 3.5 mm.
- > Ultra low height profile - 1.2mm.
- > Electrically isolated terminals for heat-sinking.
- > Compatible to IR reflow soldering.
- > Environmental friendly; RoHS compliance.



Optical Characteristics at Tj=25°C

Part Ordering Number	Color	Viewing Angle°	CRI Typ.	Luminous Intensity @ 60mA (mcd)		
				Min.	Typ.	Max.
DPW-EJG-3ZCB-1	White	120	75	5600.0	7150.0	9100.0

NOTE

- Luminous intensity is measured with an accuracy of ± 11%.
- Wavelength binning is carried for all units as per the wavelength-binning table. Only one wavelength group is allowed for each reel.

Electrical Characteristics at Tj=25°C

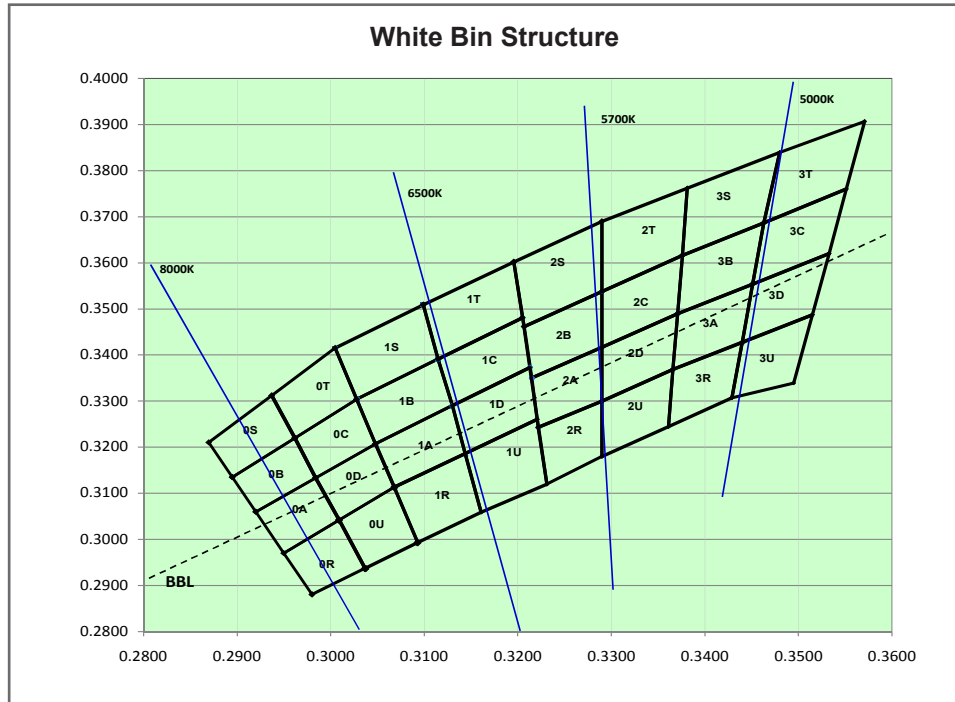
Part Number	Vf @ If = 60 mA			Vr @ Ir = 10uA
	Min. (V)	Typ. (V)	Max. (V)	Min. (V)
DPW-EJG	2.9	3.2	3.6	5

Forward Voltages are tested using a current pulse of 1 ms and has an accuracy of ± 0.1 V.

Absolute Maximum Ratings

	Maximum Value	Unit
DC forward current	70	mA
Peak pulse current	100	mA
Reverse voltage	5	V
ESD threshold (HBM)	2000	V
LED junction temperature	125	°C
Operating temperature	-40 ... +100	°C
Storage temperature	-40 ... +100	°C
Thermal resistance		
- Junction / ambient, R _{th JA}	230	K/W
- Junction / solder point, R _{th JS}	160	K/W
(Mounted on dual-sided FR4 in-house PCB ; total Cu area > 900 mm ²)		

DPW-EJG, White Color Grouping



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

Bin		1	2	3	4
0A	Cx	0.2950	0.2920	0.2984	0.3009
	Cy	0.2970	0.3060	0.3133	0.3042
0R	Cx	0.2980	0.2950	0.3009	0.3037
	Cy	0.2880	0.2970	0.3042	0.2937
1A	Cx	0.3048	0.3130	0.3144	0.3068
	Cy	0.3207	0.3290	0.3186	0.3113
1R	Cx	0.3068	0.3144	0.3161	0.3093
	Cy	0.3113	0.3186	0.3059	0.2993
2A	Cx	0.3215	0.3290	0.3290	0.3222
	Cy	0.3350	0.3417	0.3300	0.3243
2R	Cx	0.3222	0.3290	0.3290	0.3231
	Cy	0.3243	0.3300	0.3180	0.3120
3A	Cx	0.3371	0.3451	0.3440	0.3366
	Cy	0.3490	0.3554	0.3427	0.3369
3R	Cx	0.3366	0.3440	0.3429	0.3361
	Cy	0.3369	0.3428	0.3307	0.3245
0B	Cx	0.2920	0.2895	0.2962	0.2984
	Cy	0.3060	0.3135	0.3220	0.3133
0S	Cx	0.2895	0.2870	0.2937	0.2962
	Cy	0.3135	0.3210	0.3312	0.3220
1B	Cx	0.3028	0.3115	0.3130	0.3048
	Cy	0.3304	0.3391	0.3290	0.3207
1S	Cx	0.3005	0.3099	0.3115	0.3028
	Cy	0.3415	0.3509	0.3391	0.3304

Bin		1	2	3	4
2B	Cx	0.3207	0.3290	0.3290	0.3215
	Cy	0.3462	0.3538	0.3417	0.3350
2S	Cx	0.3196	0.3290	0.3290	0.3207
	Cy	0.3602	0.3690	0.3538	0.3462
3B	Cx	0.3376	0.3463	0.3451	0.3371
	Cy	0.3616	0.3687	0.3554	0.3490
3S	Cx	0.3381	0.3480	0.3463	0.3376
	Cy	0.3762	0.3840	0.3687	0.3616
0C	Cx	0.2984	0.2962	0.3028	0.3048
	Cy	0.3133	0.3220	0.3304	0.3207
0T	Cx	0.2962	0.2937	0.3005	0.3028
	Cy	0.3220	0.3312	0.3415	0.3304
1C	Cx	0.3115	0.3205	0.3213	0.3130
	Cy	0.3391	0.3481	0.3373	0.3290
1T	Cx	0.3099	0.3196	0.3205	0.3115
	Cy	0.3509	0.3602	0.3481	0.3391
2C	Cx	0.3290	0.3376	0.3371	0.3290
	Cy	0.3538	0.3616	0.3490	0.3417
2T	Cx	0.3290	0.3381	0.3376	0.3290
	Cy	0.3690	0.3762	0.3616	0.3538
3C	Cx	0.3463	0.3551	0.3533	0.3451
	Cy	0.3687	0.3760	0.3620	0.3554
3T	Cx	0.3480	0.3571	0.3551	0.3463
	Cy	0.3840	0.3907	0.3760	0.3687
0D	Cx	0.2984	0.3048	0.3068	0.3009
	Cy	0.3133	0.3207	0.3113	0.3042
0U	Cx	0.3037	0.3009	0.3068	0.3093
	Cy	0.2937	0.3042	0.3113	0.2993
1D	Cx	0.3130	0.3213	0.3221	0.3144
	Cy	0.3290	0.3373	0.3261	0.3186
1U	Cx	0.3144	0.3221	0.3231	0.3161
	Cy	0.3186	0.3261	0.3120	0.3059
2D	Cx	0.3290	0.3371	0.3366	0.3290
	Cy	0.3417	0.3490	0.3369	0.3300
2U	Cx	0.3290	0.3366	0.3361	0.3290
	Cy	0.3300	0.3369	0.3245	0.3180
3D	Cx	0.3451	0.3533	0.3515	0.3440
	Cy	0.3554	0.3620	0.3487	0.3427
3U	Cx	0.3440	0.3515	0.3495	0.3429
	Cy	0.3428	0.3487	0.3339	0.3307

Dominant color coordinate is measured with an accuracy of ± 0.01 .

Luminous Intensity Group at Tj=25°C

Brightness Group	Luminous Intensity IV (mcd)	Luminous Flux (lm) Typ
3Z	5600.0 ... 6370.0	18.6
4Z	6370.0 ... 7150.0	21.0
CA	7150.0 ... 8070.0	23.6
CB	8070.0 ... 9100.0	26.6

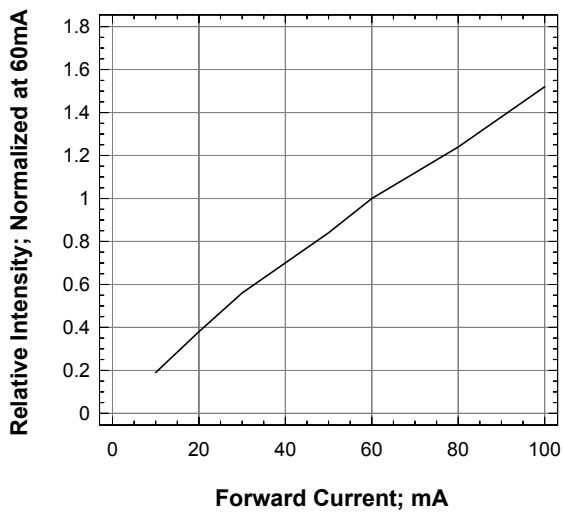
Luminous intensity is measured with an accuracy of ± 11%.

Vf Binning

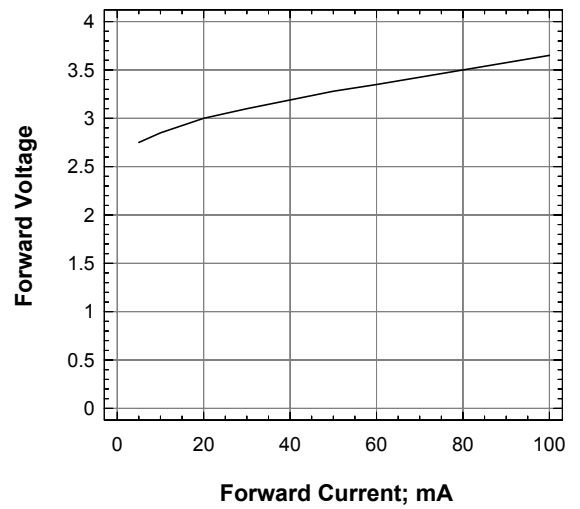
Vf Bin @ 60mA	Forward Voltage (V)
V1	2.90 ... 3.00
V2	3.00 ... 3.10
V3	3.10 ... 3.20
V4	3.20 ... 3.30
V5	3.30 ... 3.40
V6	3.40 ... 3.50
V7	3.50 ... 3.60

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

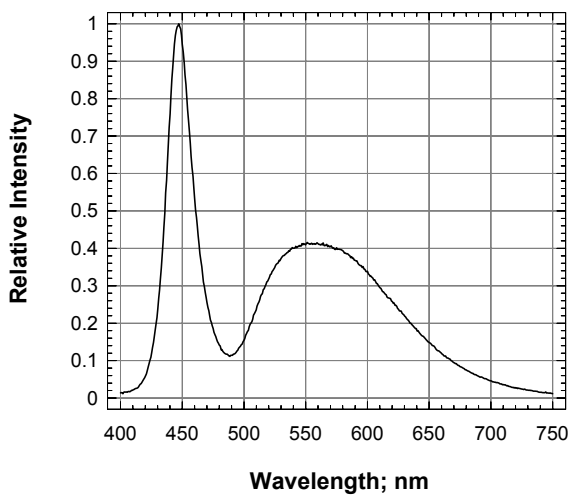
Relative Intensity Vs Forward Current



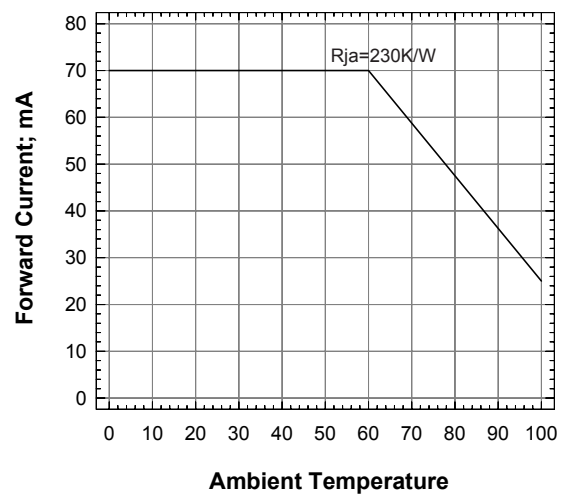
Forward Voltage Vs Forward Current



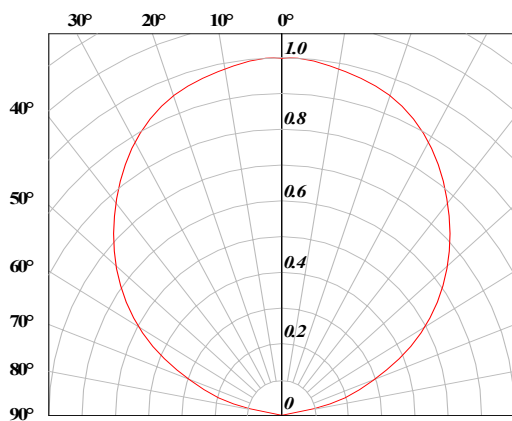
Relative Intensity Vs Wavelength



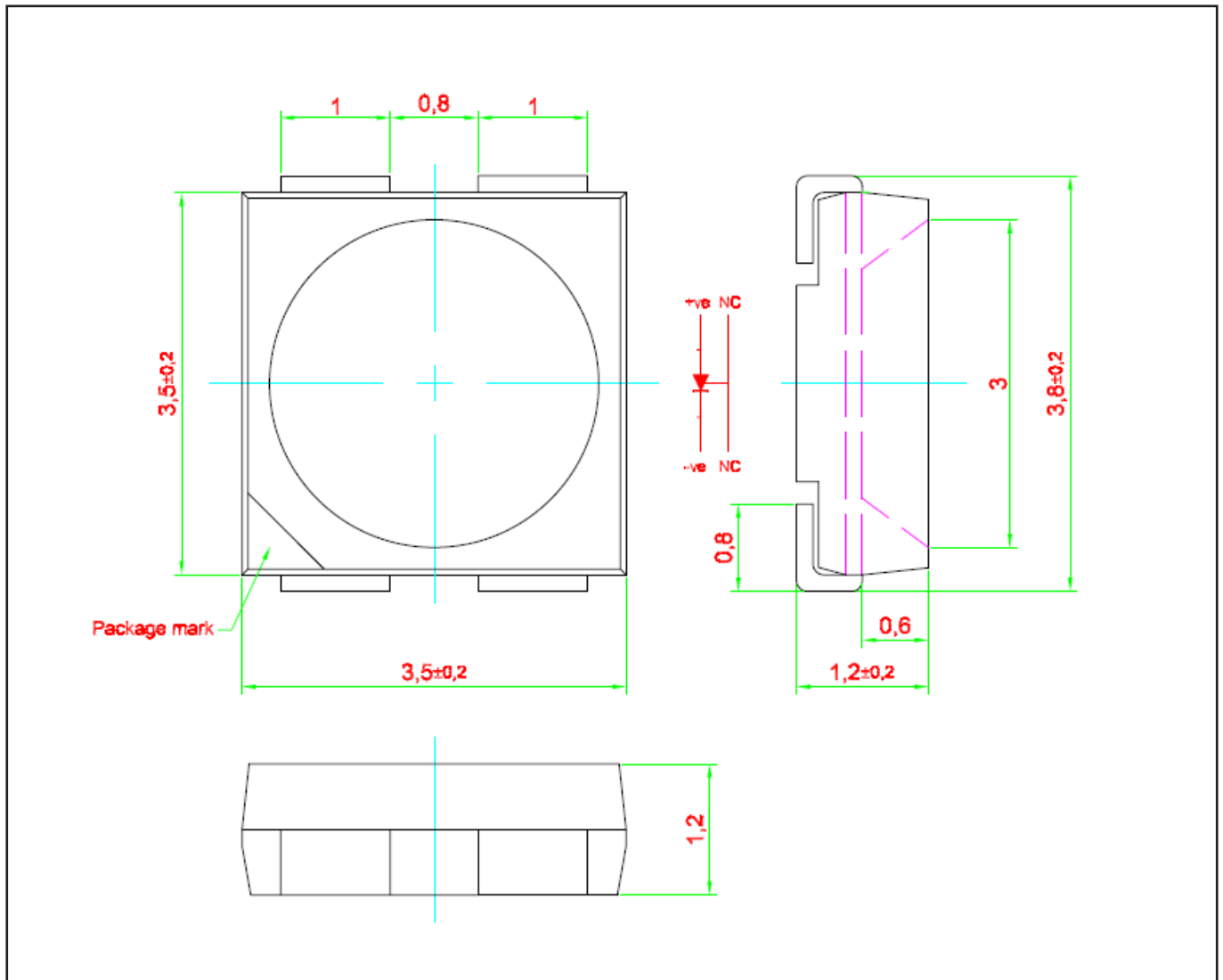
Maximum Current Vs Ambient Temperature



Radiation Pattern



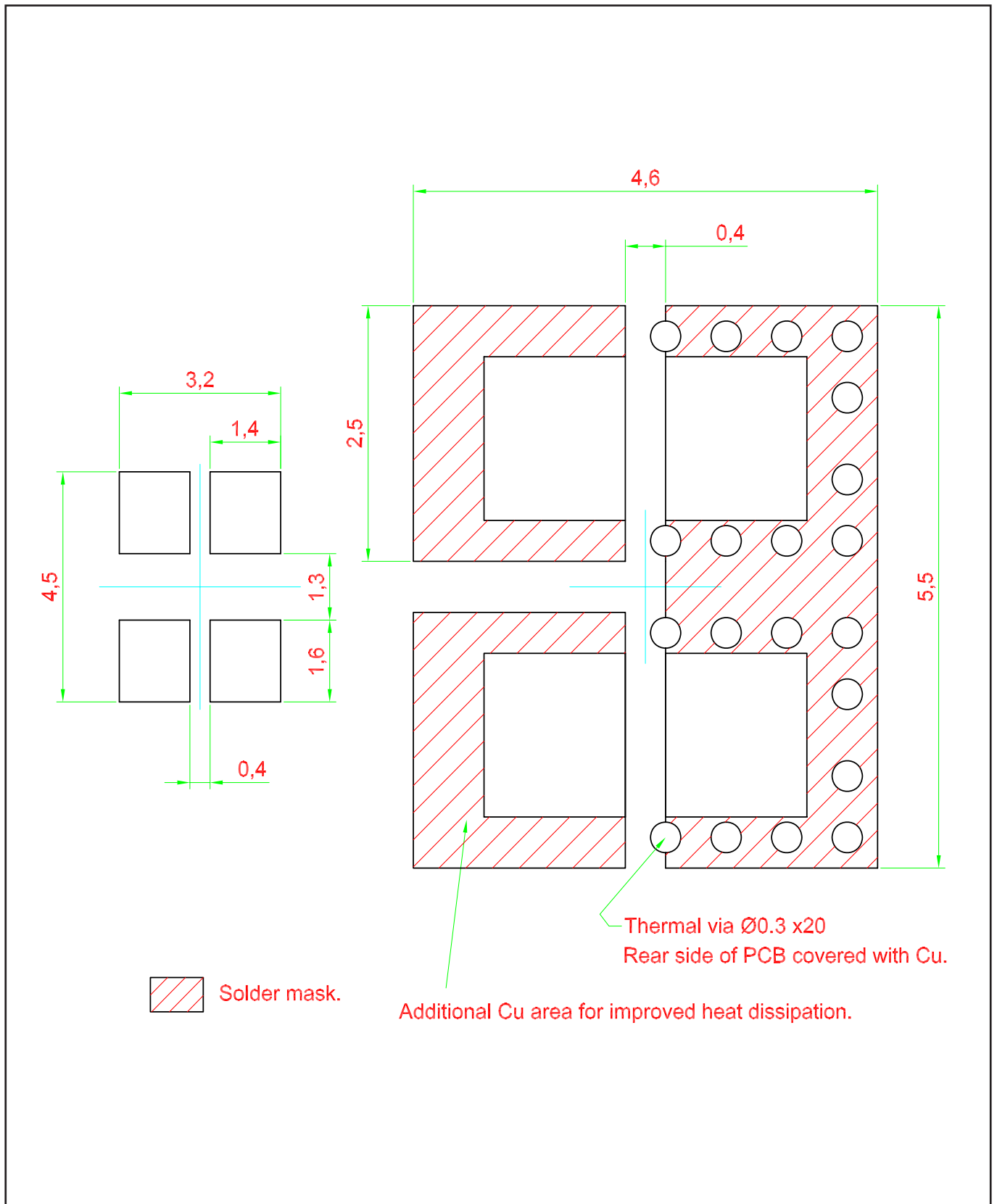
DomiPlus™ • InGaN White : DPW-EJG Package Outlines



Material

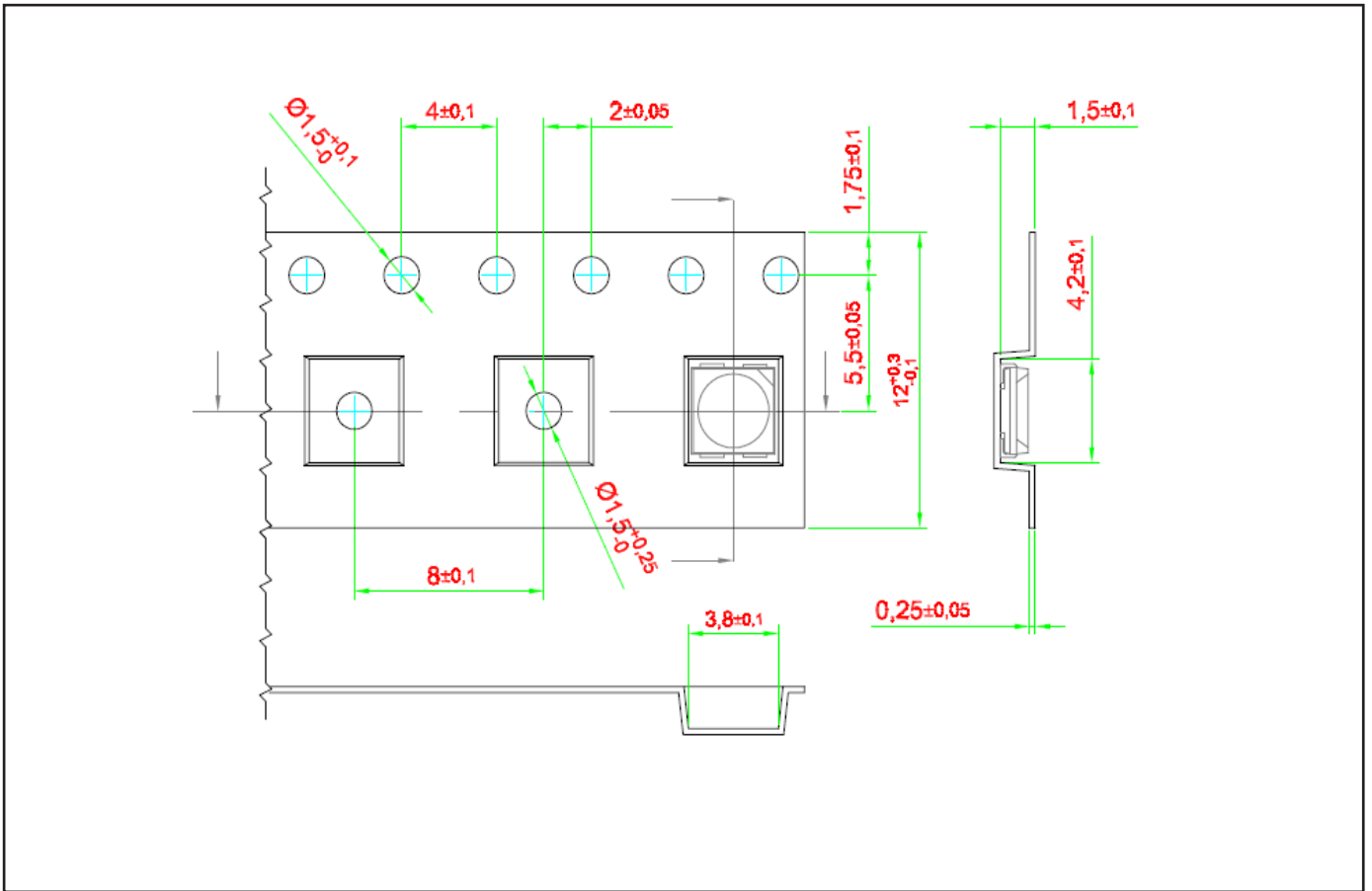
Material	
Lead-frame	Cu Alloy With Ag Plating
Package	High Temperature Resistant Plastic, PPA
Encapsulant	Silicone Resin
Soldering Leads	Sn Plating

Recommended Solder Pad

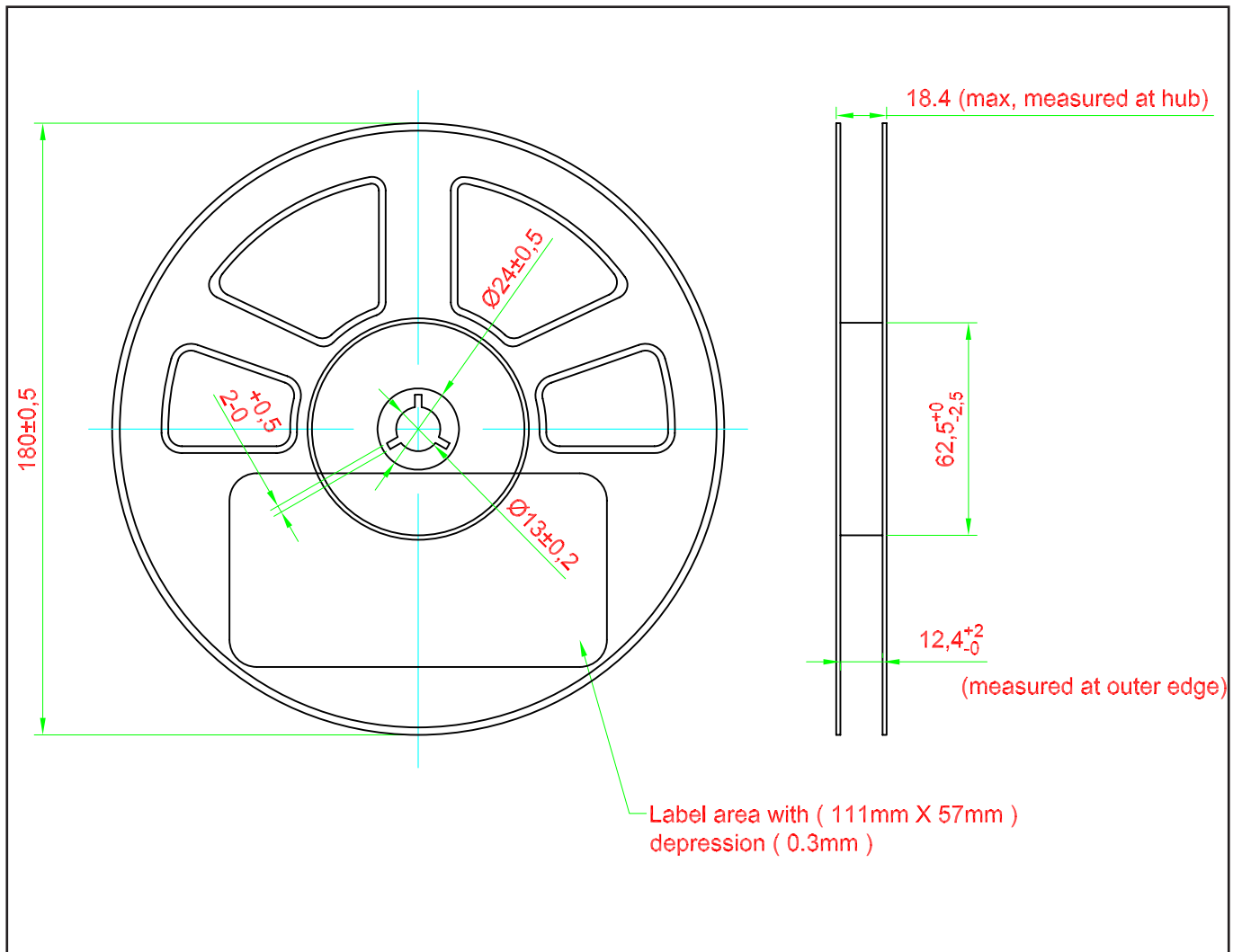


Taping and orientation

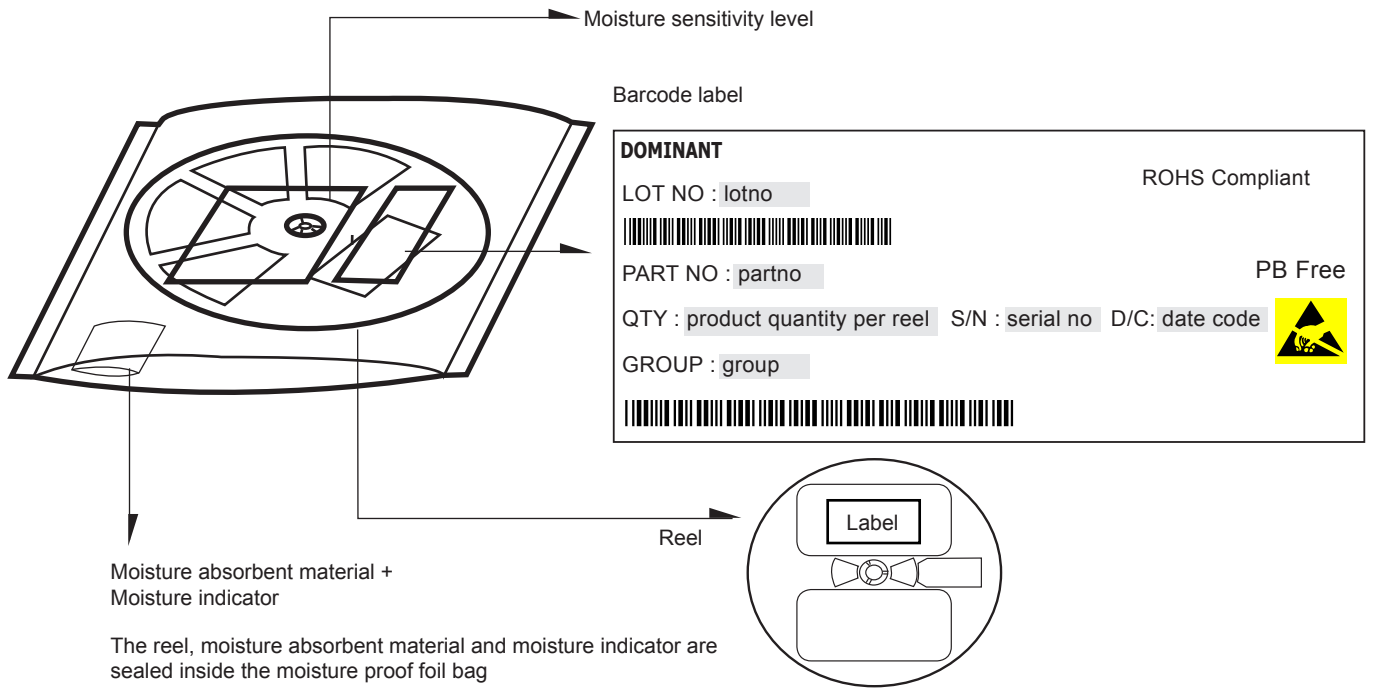
- Reels come in quantity of 1000 units.
- Reel diameter is 180 mm.



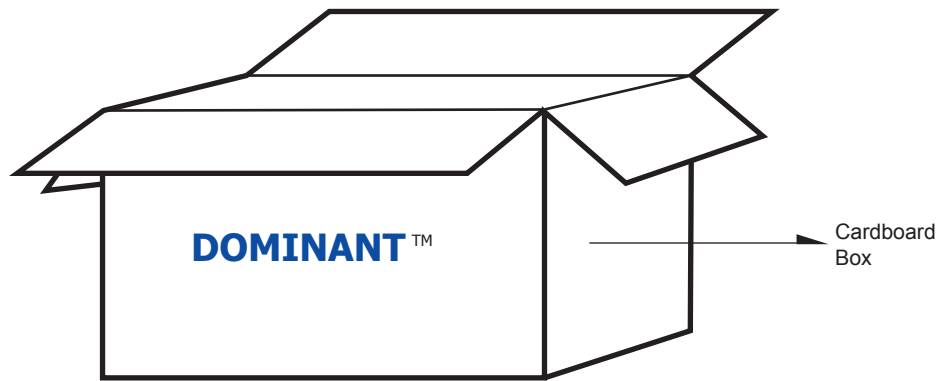
Packaging Specification



Packaging Specification



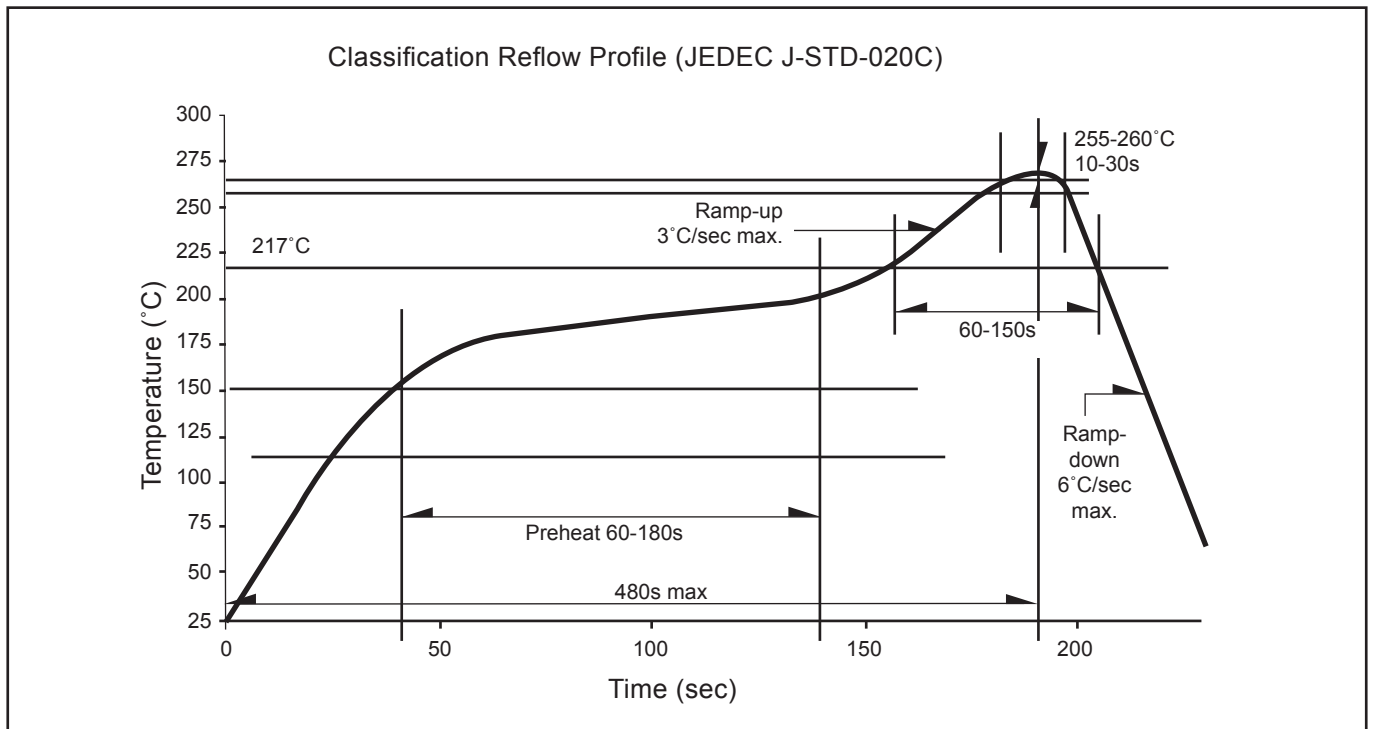
	Average 1pc DomiPlus	1 completed bag (1000pcs)
Weight (gram)	0.041	160 ± 10



For DomiPlus™

Cardboard Box Size	Dimensions (mm)	Empty Box Weight (kg)	Reel / Box	Quantity / Box (pcs)
Small	300 x 250 x 250	0.58	15 reels MAX	15,000 MAX
Large	416 x 516 x 476	1.74	96 reels MAX	96,000 MAX

Recommended Pb-free Soldering Profile



Revision History

Page	Subjects	Date of Modification
-	Initial Release	16 Apr 2012
2	Update IV bin 3ZCA -> 3ZCB	15 May 2012
9	Update Carrier Tape	12 Dec 2012
2	Add Thermal Resistance	29 Jan 2013

NOTE

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About Us

DOMINANT Opto Technologies is a dynamic Malaysian Corporation that is among the world's leading SMT LED Manufacturers. An excellence – driven organization, it offers a comprehensive product range for diverse industries and applications. Featuring an internationally certified quality assurance acclaim, DOMINANT's extra bright LEDs are perfectly suited for various lighting applications in the automotive, consumer and communications as well as industrial sectors. With extensive industry experience and relentless pursuit of innovation, DOMINANT's state-of-art manufacturing, research and testing capabilities have become a trusted and reliable brand across the globe. More information about DOMINANT Opto Technologies can be found on the Internet at <http://www.dominant-semi.com>.

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