

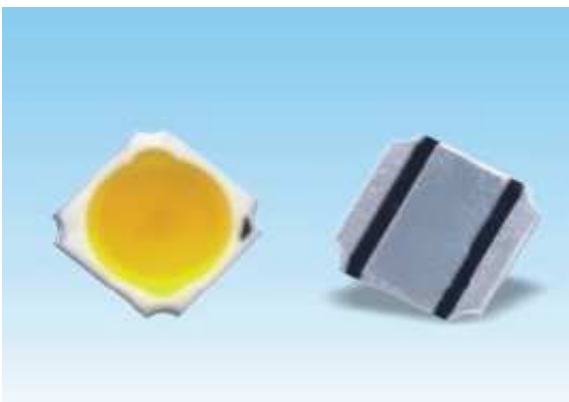
# EDCON-COMPONENTS



The Power of LED Light



## Specifications



Resin	Silicone
Bonding Wire	Ø 1mil Au
Lens Color	all
Dice	InGaN
Resin	Silicone

## Features

Tiny Size 3,5x3,5x1,0mm  
 Ceramic plus metal Material with high thermal conductivity as the substrate.  
 Silicon packed , anti UV  
 Good airproof performance, high reliability and very low degradation rate  
 Very low thermal resistance, with lowest of 3°C/W  
 Long life time over 50000HRs  
 Full range of white colors available (2700K-900K)  
 Most applicable to general lighting sources and luminaires as well as LED-TV backlighting.  
 HIGH CRI products  
 available from 0,2W to 3Watt

## Applications

Light sources for general lighting. Most suitable for bulbs and tube lights.  
 Various general illumination luminaires  
 Backlighting Light sources for various large-size backlighting gives to LED TV  
 Vehicles interior lighting: Plane Ship, Car, and Train etc.  
 Various special lighting which require long lifespan and high reliability like projector light source.  
 Various commercial lighting.

**3535 SMT Ceramic LED  
0,5Watt**

Part No.: **M11C8001**

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	10.04.2009	Customer:
APPD:	Schumi			FINISH	Jamy		Sheet No.	1 from 18		

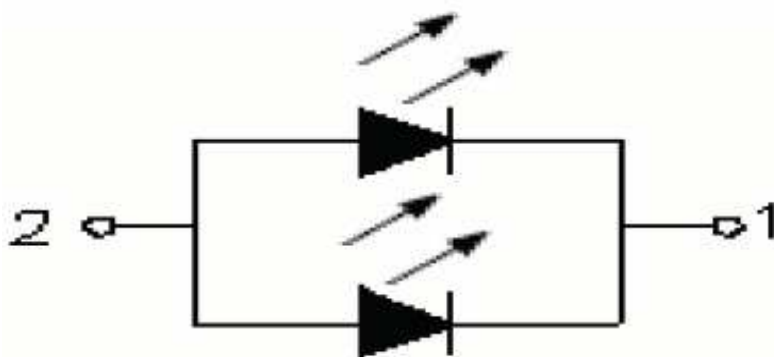
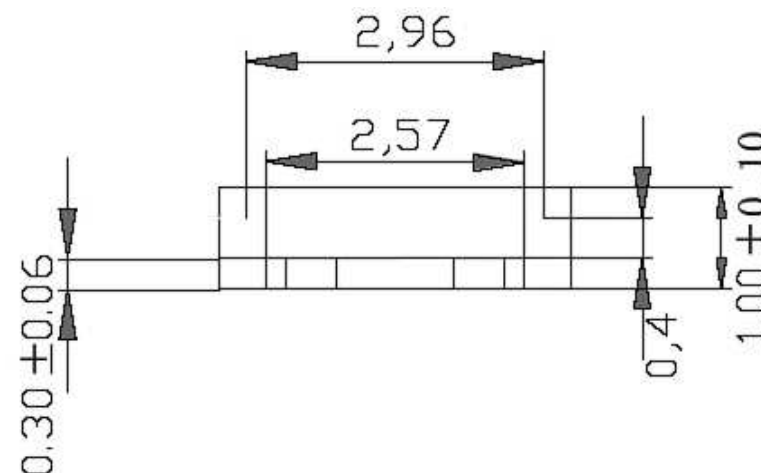
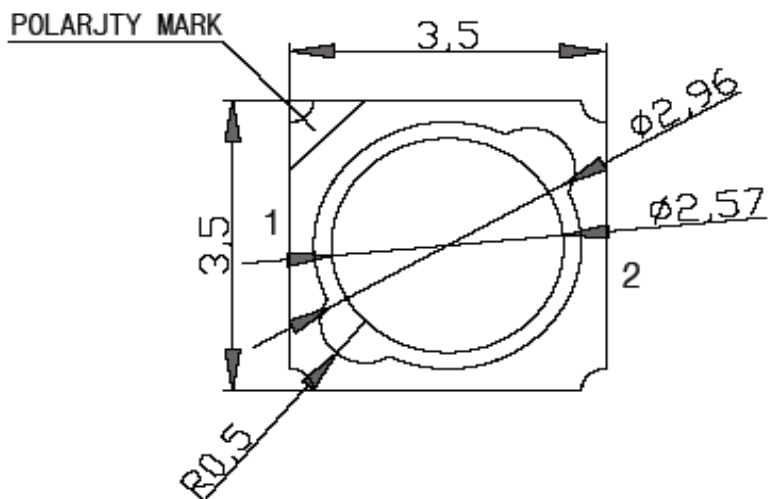
# EDCON-COMPONENTS



The Power of LED Light



## Package Outline Dimensions (mm)



<b>3535 SMT Ceramic LED</b>	
<b>0,5Watt</b>	
Part No.:	<b>M11C8001</b>
Customer:	

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	10.04.2009
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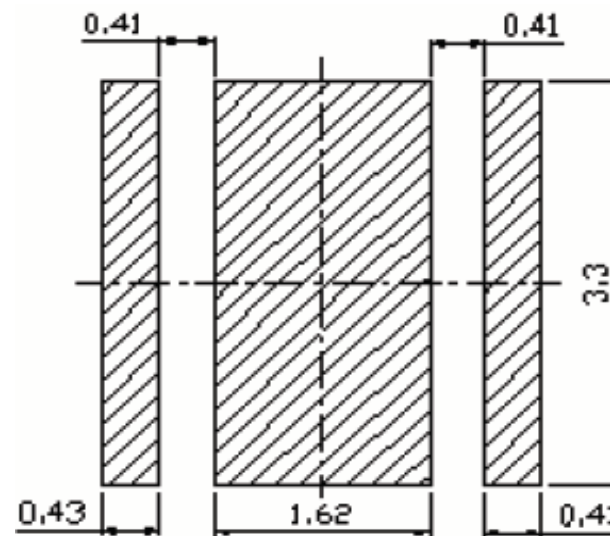
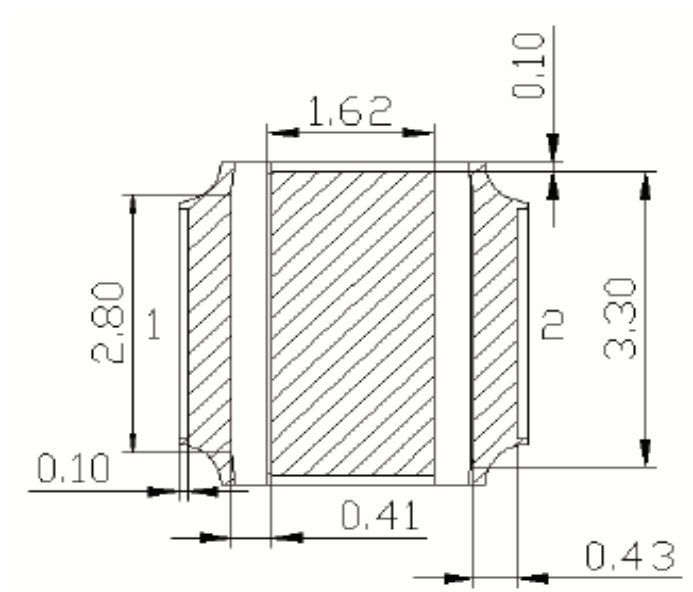
# EDCON-COMPONENTS



The Power of LED Light



## Package Outline Dimensions (mm)



**3535 SMT Ceramic LED  
0,5Watt**

Part No.: **M11C8001**

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APPD:	Schumi			FINISH	Jamy		Sheet No.	3 from 18	

Customer:  
email: [info@edcon-components.com](mailto:info@edcon-components.com)

# EDCON-COMPONENTS



The Power of LED Light



## Absolute Maximum Ratings of Color White, Royla Blue, Blue, Green

Characteristics (Ta=25°C)	Unit	Min	Typ	Max.
Thermal Resistance, junction to solder point	°C/W	3	4	
Temperature coefficient of voltage	mV/°C		-.5.0	
ESD cClassification (HBM per Mil-Std-883D)			Class 2	
DC Forward Current - white ≥ 5000K	mA			250
DC Forward Current - white ≤ 5000K	mA			200
DC pulse Current ( @ 1KHz, 10% duty cycle)	mA			350
Reverse Voltage	V			5
Forward Voltage ( @75mA)	V		3,3	3,6
Forward Voltage ( @60mA)	V		3,2	
LED Junction Temperature	°C			150

## Electro Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min	Typ.	Max.	Unit	Condition
Viewing Angle	2 Ø 1/2		120		deg	If=150mA
Reverse Current	IR			50	µA	VR=5V

**3535 SMT Ceramic LED  
0,5Watt**

Part No.: **M11C8001**

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	10.04.2009
APPD:	Schumi			FINISH	Jamy		Sheet No.		4 from 18

Customer:

# EDCON-COMPONENTS



The Power of LED Light



## Absolute Maximum Ratings of Color Amber, Red

Characteristics (Ta=25°C)	Unit	Min	Typ	Max.
Thermal Resistance, junction to solder point	°C/W	4	5	
Temperature coefficient of voltage	mV/°C		-3.0	
ESD cClassification (HBM per Mil-Std-883D)			Class 2	
DC Forward Current - white ≥ 5000K	mA			250
DC pulse Current ( @ 1KHz, 10% duty cycle)	mA			350
Reverse Voltage	V			5
Forward Voltage ( @75mA)	V		2,2	2,6
Forward Voltage ( @60mA)	V		2,1	2,4
LED Junction Temperature	°C			150

## Electro Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min	Typ.	Max.	Unit	Condition
Viewing Angle	2 Ø 1/2		120		deg	If=150mA
Reverse Current	IR			50	µA	VR=5V

**3535 SMT Ceramic LED  
0,5Watt**

Part No.: **M11C8001**

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	10.04.2009
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Customer:

# EDCON-COMPONENTS



The Power of LED Light



## Bin Range of Luminous Intensity

Color	CCT Range		Luminous Flux (lm) I=60mA		
	Min	Max	Group	Min	Type
Cool White	7000K	9000K	G2	35	42
Daylight Wh	5000K	7000K	G2	35	42
Nature Wh	3500K	5000K	F	28	35
Warm White	2700K	3500K	F	28	35

White		
Group	Min. VF(V)	Max. VF(V)
V6	2,8	3,0
V7	3,0	3,2
V8	3,2	3,4
V9	3,4	3,6
V10	3,6	3,8
V11	3,8	4,0

Please take Luminous Flux as standard parameter, Luminous Intensity is only for reference.  
 Tolerance of Luminous Intensity is +/-15%  
 Leds with Ra under 75 are not available for this product.

<b>3535 SMT Ceramic LED 0,5Watt</b>
Part No.: <b>M11C8001</b>

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	10.04.2009	Customer:
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# EDCON-COMPONENTS



The Power of LED Light



## CCT Range of White

Region	CCT Range		X	Y	Region	CCT Range		X	Y
	Min.	Max.				Min.	Max.		
CK	8200K	10000K	0,283	0,284	CB	7000K	8200K	0,306	0,322
			0,295	0,297				0,308	0,311
			0,298	0,288				0,295	0,297
			0,287	0,276				0,292	0,306
CA	8200K	10000K	0,292	0,306	CE	7000K	8200K	0,301	0,342
			0,295	0,297				0,306	0,322
			0,283	0,284				0,292	0,306
			0,279	0,291				0,287	0,321
CM	7000K	8200K	0,295	0,297					
			0,308	0,311					
			0,310	0,300					
			0,298	0,288					
Region	CCT Range		X	Y	Region	CCT Range		X	Y
	Min.	Max.				Min.	Max.		
DN	6300K	7000K	0,308	0,311	DG3	5700K	6000K	0,329	0,369
			0,317	0,319				0,329	0,357
			0,318	0,308				0,322	0,355
			0,310	0,300				0,322	0,362
DC	6300K	7000K	0,316	0,332	DG4	6000K	6300K	0,322	0,362
			0,317	0,319				0,322	0,350
			0,308	0,311				0,315	0,344
			0,306	0,322				0,314	0,355
DF	6300K	7000K	0,314	0,355	DJ1	5300K	5700K	0,329	0,330
			0,316	0,332				0,329	0,345
			0,306	0,322				0,3375	0,352
			0,301	0,342				0,3365	0,336

**3535 SMT Ceramic LED  
0,5Watt**

Part No.: **M11C8001**

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	10.04.2009
APPD:	Schumi			FINISH	Jamy		Sheet No.		7 from 18

Customer:  
email: info@edcon-components.com



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The Power of LED Light



## CCT Range of White

Region	CCT Range		X	Y	Region	CCT Range		X	Y
	Min.	Max.				Min.	Max.		
DP	5700K	6300K	0,317	0,319	DJ2	5000K	5300K	0,3365	0,336
			0,329	0,33				0,3375	0,352
			0,329	0,318				0,346	0,359
			0,318	0,308				0,344	0,342
DD	5700K	6300K	0,329	0,345	DH1	5300K	5700K	0,329	0,345
			0,329	0,33				0,329	0,369
			0,317	0,319				0,3385	0,3765
			0,316	0,332				0,3375	0,352
DGI	6000K	6300K	0,322	0,355	DH2	5000K	5300K	0,3375	0,352
			0,322	0,3385				0,3385	0,3765
			0,316	0,332				0,348	0,384
			0,315	0,3435				0,346	0,359
DG2	5700K	6000K	0,329	0,357					
			0,329	0,345					
			0,322	0,3385					
			0,322	0,350					

<b>3535 SMT Ceramic LED</b>	
<b>0,5Watt</b>	
Part No.:	<b>M11C8001</b>
Customer:	

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	10.04.2009
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# EDCON-COMPONENTS



The Power of LED Light



## CCT Range of White

Region	CCT Range		X	Y	Region	CCT Range		X	Y
	Min.	Max.				Min.	Max.		
NA	4750K	5000K	0,3451	0,3554	NG	3950K	4250K	0,3670	0,3578
			0,3533	0,3620				0,3702	0,3722
			0,3515	0,3487				0,3825	0,3798
			0,3440	0,3428				0,3783	0,3646
NB	4750K	5000K	0,3463	0,3687	NH	3950K	4250K	0,3702	0,3722
			0,3551	0,3760				0,3736	0,3874
			0,3533	0,3620				0,3869	0,3958
			0,3451	0,3554				0,3825	0,3798
NC	4500K	4750K	0,3512	0,3465	NJ	3700K	3950K	0,3783	0,3646
			0,3529	0,3597				0,3825	0,3798
			0,3615	0,3659				0,3950	0,3875
			0,3590	0,3521				0,3898	0,3716
ND	4500K	4750K	0,3529	0,3597	NK	3700K	3950K	0,3825	0,3798
			0,3548	0,3736				0,3869	0,3958
			0,3641	0,3804				0,4006	0,4044
			0,3614	0,3659				0,3950	0,3875
NE	4250K	4500K	0,3590	0,3521	NM	3450K	3700K	0,3889	0,3690
			0,3615	0,3659				0,3941	0,3848
			0,3702	0,3722				0,4080	0,3916
			0,3670	0,3578				0,4017	0,3751
NF	4250K	4500K	0,3615	0,3659	NN	3450K	3700K	0,3941	0,3848
			0,3641	0,3804				0,3996	0,4015
			0,3736	0,3874				0,4146	0,4089
			0,3702	0,3722				0,4080	0,3916

**3535 SMT Ceramic LED  
0,5Watt**

Part No.: **M11C8001**

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	10.04.2009	Customer:
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# EDCON-COMPONENTS



The Power of LED Light



## CCT Range of White

Region	CCT Range		X	Y	Region	CCT Range		X	Y
	Min.	Max.				Min.	Max.		
WA	3200K	3450K	0,4017	0,3751	WF	2850K	3050K	0,4342	0,4028
			0,4080	0,3916				0,4430	0,4212
			0,4221	0,3984				0,4562	0,4260
			0,4147	0,3814				0,4465	0,4071
WB	3200K	3450K	0,4080	0,3916	WG	2720K	2850K	0,4373	0,3893
			0,4146	0,4089				0,4465	0,4071
			0,4299	0,4165				0,4582	0,4099
			0,4221	0,3984				0,4483	0,3919
WC	3050K	3200K	0,4147	0,3814	WH	2720K	2850K	0,4465	0,4071
			0,4221	0,3984				0,4562	0,4260
			0,4342	0,4028				0,4687	0,4289
			0,4259	0,3853				0,4582	0,4099
WD	3050K	3200K	0,4221	0,3984	WJ	2500K	2720K	0,4483	0,3919
			0,4299	0,4165				0,4582	0,4099
			0,4430	0,4212				0,4700	0,4126
			0,4342	0,4028				0,4593	0,3944
WE	2850K	3050K	0,4259	0,3853	WK	2500K	2720K	0,4582	0,4099
			0,4342	0,4028				0,4687	0,4289
			0,4465	0,4071				0,4814	0,4319
			0,4373	0,3893				0,4700	0,4126

**3535 SMT Ceramic LED  
0,5Watt**

Part No.: **M11C8001**

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	10.04.2009
APPD:	Schumi			FINISH	Jamy		Sheet No.		10 from 18

Customer:

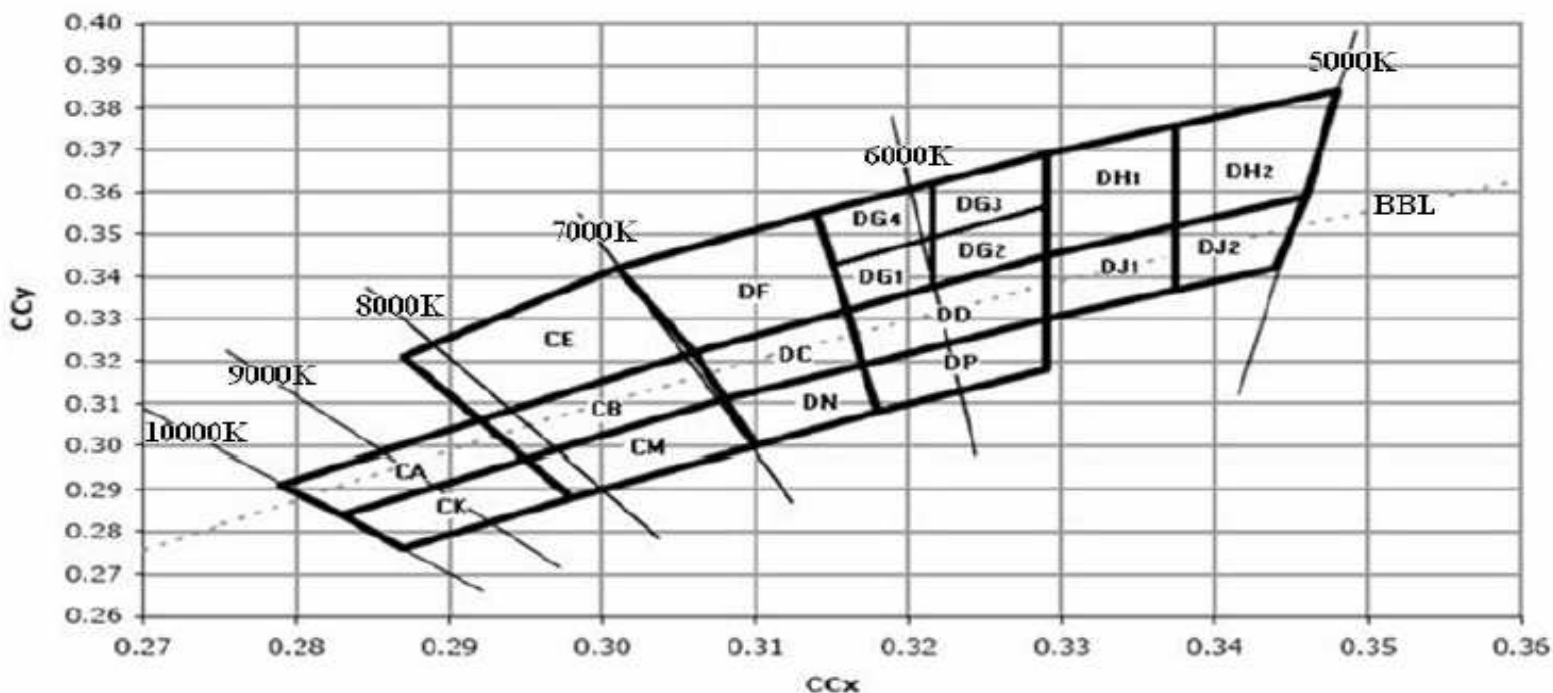
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The Power of LED Light



## Characteristics



<b>3535 SMT Ceramic LED</b>	
<b>0,5Watt</b>	
Part No.:	<b>M11C8001</b>
Customer:	

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	10.04.2009
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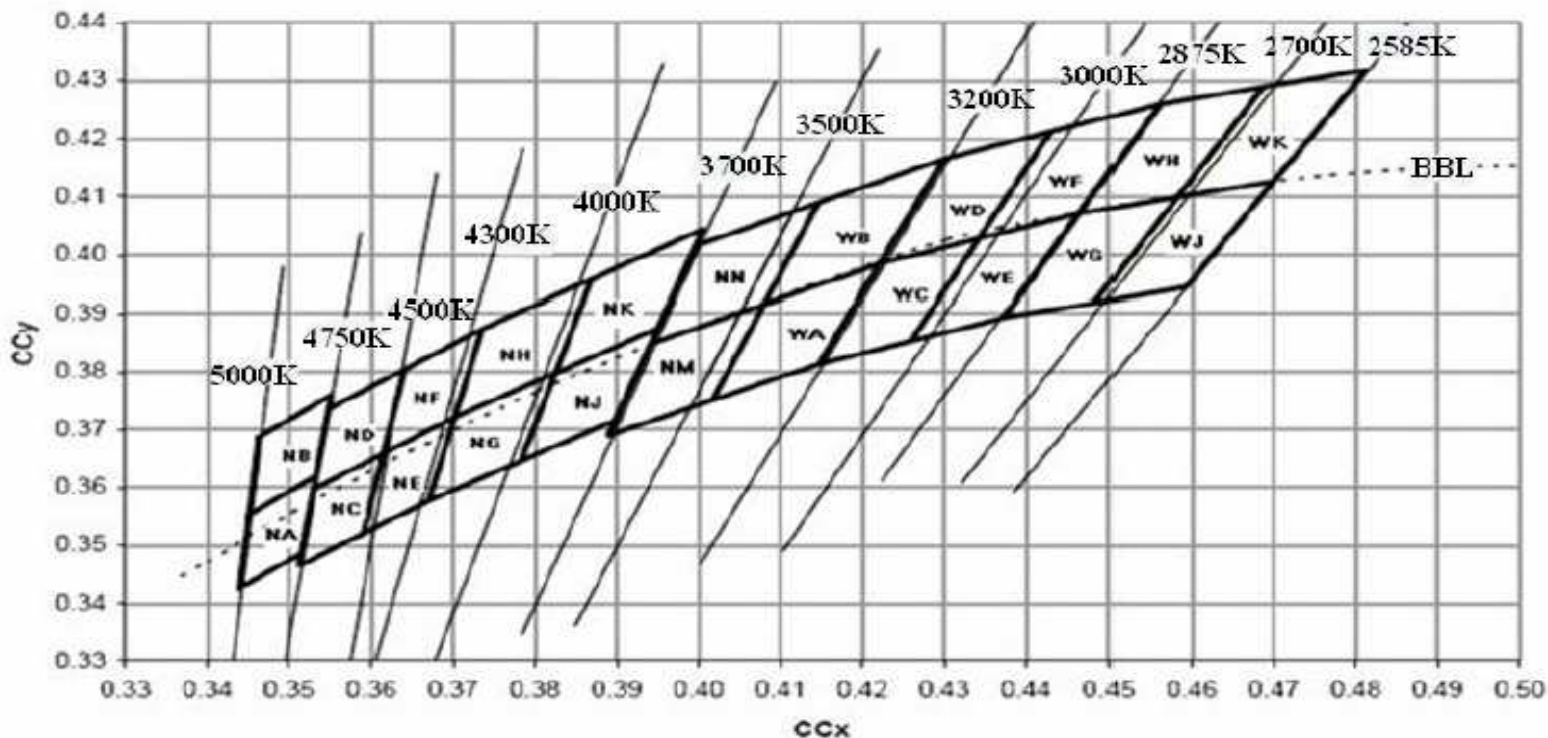
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The Power of LED Light



## Characteristics



<b>3535 SMT Ceramic LED</b>	
<b>0,5Watt</b>	
Part No.:	<b>M11C8001</b>
Customer:	

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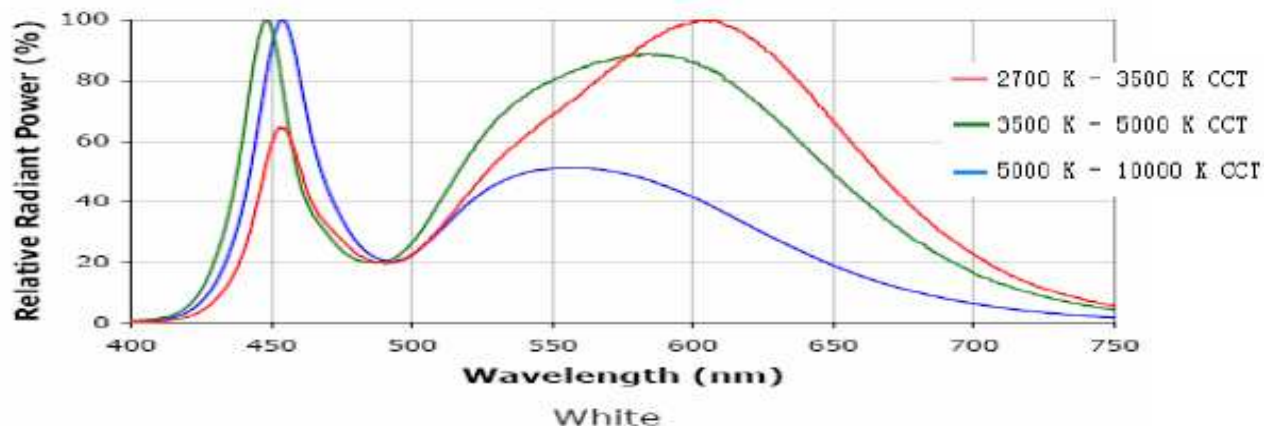
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The Power of LED Light



## Characteristics



<b>3535 SMT Ceramic LED 0,5Watt</b>	
Part No.:	<b>M11C8001</b>
Customer:	

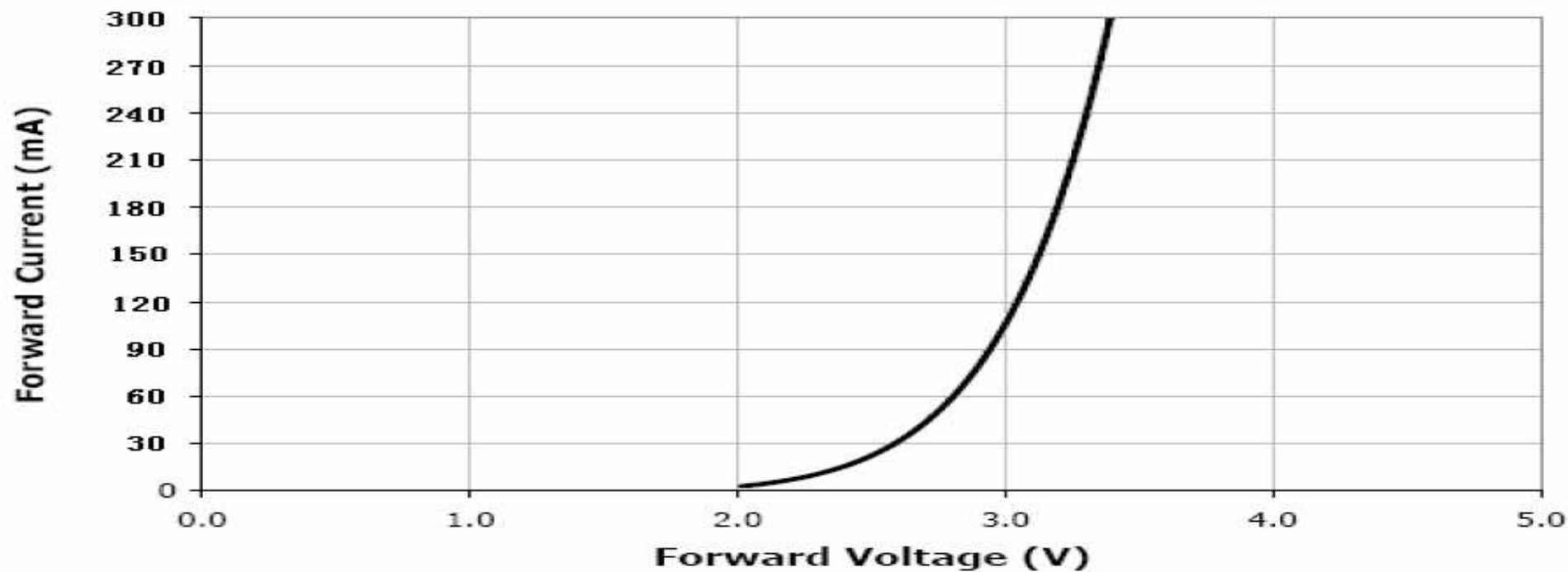
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The Power of LED Light



Characteristics



<b>3535 SMT Ceramic LED</b>	
<b>0,5Watt</b>	
Part No.:	<b>M11C8001</b>
Customer:	

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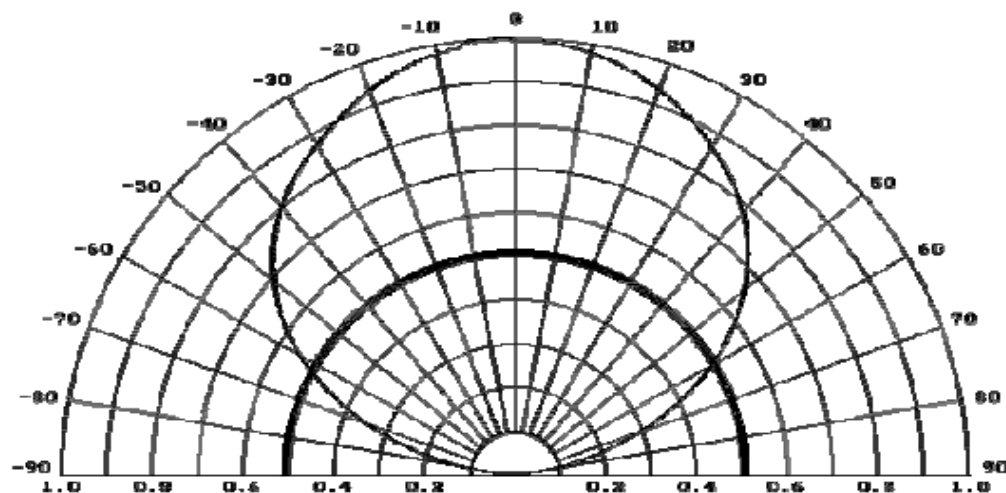


The Power of LED Light



## Characteristics

Directive Characteristics 配光曲线特性



<b>3535 SMT Ceramic LED</b>	
<b>0,5Watt</b>	
Part No.:	<b>M11C8001</b>
Customer:	

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APPD:	Schumi			FINISH	Jamy		Sheet No.	15 from 18	



# EDCON-COMPONENTS



The Power of LED Light



## Technical Informations

### Test Circuit



### Over Current proof

Cutomer must aply resistors for protection slight voltage shift will cause big curent change (Burn out will happen)

### Storage

It is recommend to store the products in the following condititions

Humidity: 60% R.H. max.

Temperature: 5°C~30°C (41°F ~ 86°F)

Shelf life in sealed bag: 12mounth at <5°C~30°C and 30% R.H after the package is opening the products should be used within 24hrs. Or they should be kept storad at ≤20% R.H. with zip-lock sealed.

### Baking

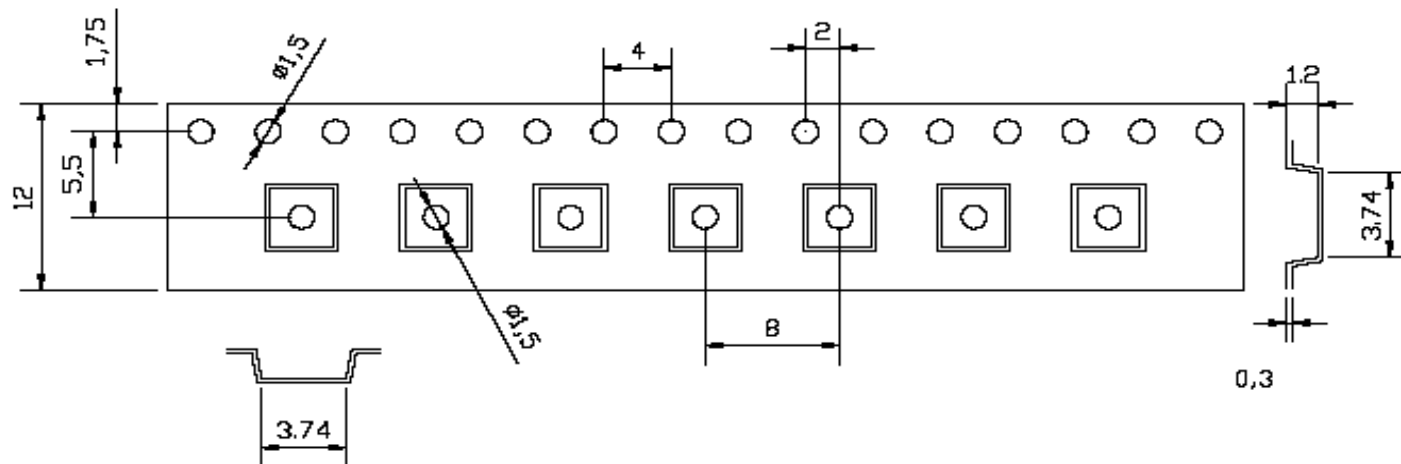
It is recommended to bake before soldering when the pack is unsealed after 24hrs. The conditions are as followings

80 +/-3°C x 10~12hrs and 5% RH taped reel type

100 +/-3°+ 1hr~2hr, bulk type

130 +/-3°+ 45min~1hr, bulk type

### Tape / Reel Informations



**3535 SMT Ceramic LED  
0,5Watt**

Part No.: **M11C8001**

Customer:  
email: info@edcon-components.com

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	10.04.2009
APPD:	Schumi			FINISH	Jamy		Sheet No.	16 from 18	

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# EDCON-COMPONENTS



The Power of LED Light



## Ordering Informations

Serie	Power of LED	Quantity of Dices	Frame Size	Color of LED	Viewing Angle	Brightness Code	Bin Code CIE	ROHS Compliant	Packing	
<b>M11C8001</b>	<b>B</b>	<b>2</b>	<b>3535</b>	<b>CW</b>	<b>B</b>	<b>xx</b>	<b>xx</b>	<b>R</b>	<b>TR</b>	

<b>B= 0,5W</b>	<b>2= 2 Dices</b>	<b>3535= 3,5x3,5mm</b>	<b>CW= Cool White</b>	<b>B= 120° degree</b>	<b>B= 120° degree</b>	<b>B= 120° degree</b>	<b>R= ROHS Conform</b>	<b>TR= Tape Reel</b>
----------------	-------------------	------------------------	-----------------------	-----------------------	-----------------------	-----------------------	------------------------	----------------------

<b>DW= Day White</b>
<b>NW= Nature White</b>
<b>WW= Warm White</b>

We cannot give you a garanty. For the same bin code order by order.

**N= NON ROHS Conform**

**3535 SMT Ceramic LED  
0,5Watt**

Part No.: **M11C8001**

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	10.04.2009	Customer:
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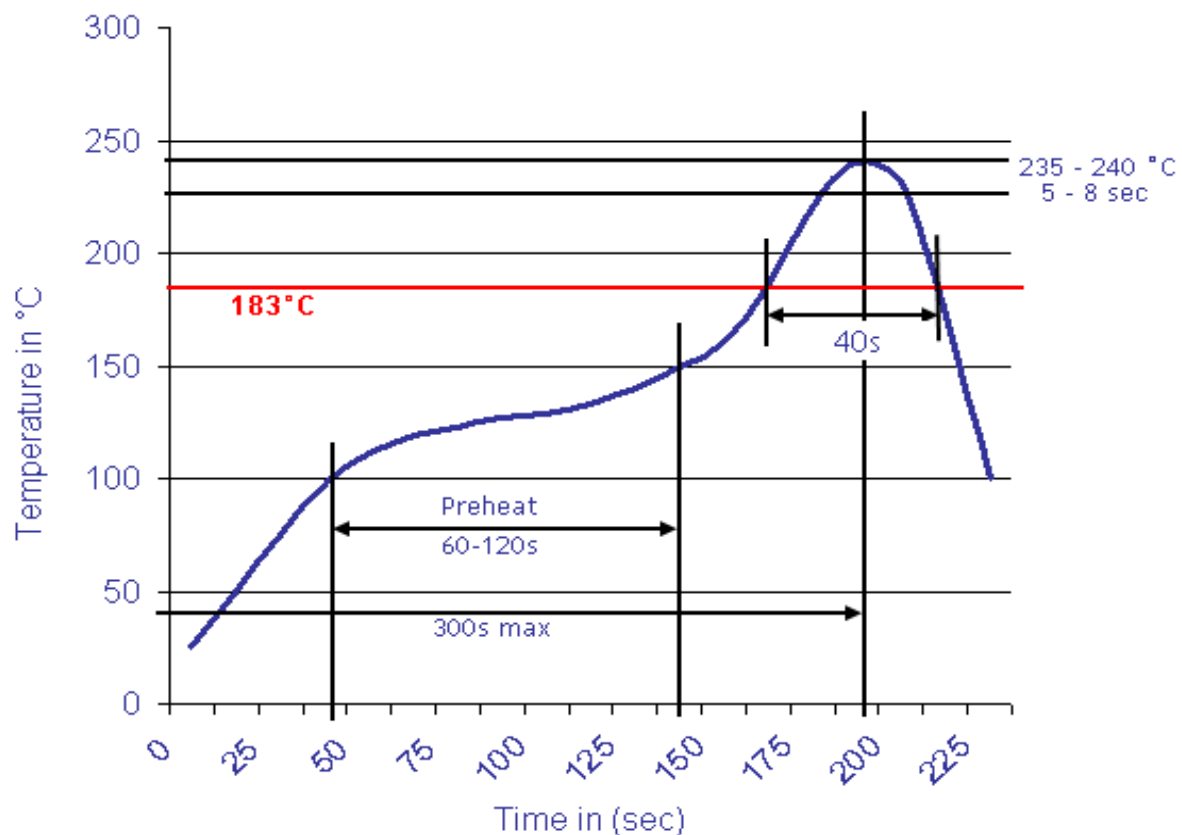


The Power of LED Light



Soldering Profile Curve

Classification Reflow Profile (JEDEC J-STD-020C)



<b>3535 SMT Ceramic LED</b>	
<b>0,5Watt</b>	
Part No.:	<b>M11C8001</b>
Customer:	

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	10.04.2009
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