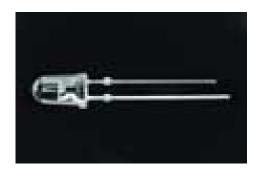


#### Standard LED (white)



Part Number: LT-0002

Diameter: 3mm Viewing Angle: 60° Housing Color: clear Emitting Color: white

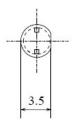
X: 0,310 Y: 0,310

MCD min.: 4610 mcd MCD typ.: 6200 mcd MCD max.: 6510 mcd mA test.: 20 mcd mA typ.: 30 mA V typ.: 3,2 V V max.: 3,5 V Nichia LEDs are the most popular, high quality and reliable light emitting diodes to buy on the market since many years. Skilled eyes quickly recognise the solid leadframe, clear edges and unique dome.

These high performance LEDs for highest demands are convincing by features like long lifetime, true colors and processing quality. Perfected manufacturing sequences guarantie a steady top production standart up to the last detail that no second manufacturer provides that way.

Applications with Nichia LEDs maybe more cost intensive than applications with low budget LEDs of course but a lot more reliable and brilliant, too. If it is not a low cost project and your name stands for the quality you are making the best choice with these LEDs.







#### Standard LED (white)



Part Number: LT-0004 Diameter: 3mm Viewing Angle: 70° Housing Color: diffused Emitting Color: white

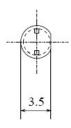
X: 0,310 Y: 0,310

MCD min.: 1260 mcd MCD typ.: 1560 mcd MCD max.: 1840 mcd mA test.: 20 mcd mA typ.: 30 mA V typ.: 3,6 V V max.: 4,0 V Nichia LEDs are the most popular, high quality and reliable light emitting diodes to buy on the market since many years. Skilled eyes quickly recognise the solid leadframe, clear edges and unique dome.

These high performance LEDs for highest demands are convincing by features like long lifetime, true colors and processing quality. Perfected manufacturing sequences guarantie a steady top production standart up to the last detail that no second manufacturer provides that way.

Applications with Nichia LEDs maybe more cost intensive than applications with low budget LEDs of course but a lot more reliable and brilliant, too. If it is not a low cost project and your name stands for the quality you are making the best choice with these LEDs.







#### Superbright LED (blue)



Part Number: LT-0008

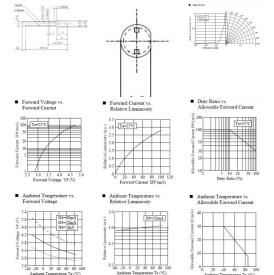
Diameter: 3mm Viewing Angle: 15° Housing Color: clear Emitting Color: blue

X: 0,130 Y: 0,130

MCD min.: 2760 mcd MCD typ.: 3200 mcd MCD max.: 3880 mcd mA test.: 20 mcd mA typ.: 30 mA V typ.: 3,6 V V max.: 4,0 V Nichia LEDs are the most popular, high quality and reliable light emitting diodes to buy on the market since many years. Skilled eyes quickly recognise the solid leadframe, clear edges and unique dome.

These high performance LEDs for highest demands are convincing by features like long lifetime, true colors and processing quality. Perfected manufacturing sequences guarantie a steady top production standart up to the last detail that no second manufacturer provides that way.

Applications with Nichia LEDs maybe more cost intensive than applications with low budget LEDs of course but a lot more reliable and brilliant, too. If it is not a low cost project and your name stands for the quality you are making the best choice with these LEDs.





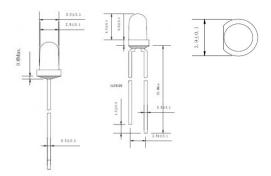
# **Superbright LED (green)**



Part Number: LT-0059
Diameter: 3mm
Viewing Angle: 30°
Housing Color: clear
Emitting Color: green
Nanometer: 525
MCD typ.: 8000 mcd
mA test.: 20 mcd
mA typ.: 20 mA
V typ.: 2,8 V

V max.: 3,4 V

- Brightest selections
- Long lifetime
- Excellent quality
- Very good price-performance ratio





## Standard LED (red)



Part Number: LT-0060

Diameter: 3mm
Viewing Angle: 34°
Housing Color: clear
Emitting Color: red
Nanometer: 640
MCD typ.: 2500 mcd
mA test.: 20 mcd
mA typ.: 20 mA
V typ.: 1,8 V
V max.: 2,5 V

- Brightest selections
- Long lifetime
- Excellent quality
- Very good price-performance ratio









# **Standard LED (yellow)**



Part Number: LT-0061 Diameter: 3mm Viewing Angle: 30° Housing Color: clear Emitting Color: yellow Nanometer: 588 MCD typ.: 1500 mcd

mA test.: 20 mcd mA typ.: 20 mA V typ.: 2.0 V V max.: 2.2 V

- Brightest selections
- Long lifetime
- Excellent quality
- Very good price-performance ratio







## **Standard LED (yellow)**



Part Number: LT-0062

Diameter: 3mm
Viewing Angle: 34°
Housing Color: clear
Emitting Color: yellow
Nanometer: 589
MCD typ.: 1500 mcd
mA test.: 20 mcd
mA typ.: 20 mA
V typ.: 2,3 V
V max.: 2,8 V

- Brightest selections
- Long lifetime
- Excellent quality
- Very good price-performance ratio









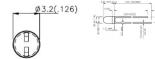
# Classic LED (green)



Part Number: LT-0073
Diameter: 3mm
Viewing Angle: 60°
Housing Color: diffused
Emitting Color: green
Nanometer: 568
MCD max.: 30 mcd
mA test.: 20 mcd
mA typ.: 20 mA
V typ.: 2,2 V

V max.: 2,5 V

- Excellent quality product
- Long lifetime
- Very good quality
- Unbeatable price-performance ratio





# Classic LED (red)



Part Number: LT-0074
Diameter: 3mm
Viewing Angle: 60°
Housing Color: diffused
Emitting Color: red
Nanometer: 625
MCD max.: 30 mcd
mA test.: 20 mcd
mA typ.: 20 mA
V typ.: 2,0 V
V max.: 2,5 V

- Excellent quality product
- Long lifetime
- Very good quality
- Unbeatable price-performance ratio





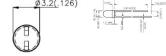
# Classic LED (yellow)



Part Number: LT-0075
Diameter: 3mm
Viewing Angle: 60°
Housing Color: diffused
Emitting Color: yellow
Nanometer: 588
MCD max.: 25 mcd
mA test.: 20 mcd
mA typ.: 20 mA
V typ.: 2,1 V

V max.: 2,5 V

- Excellent quality product
- Long lifetime
- Very good quality
- Unbeatable price-performance ratio





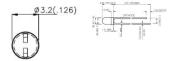
## Blink LED (red)



Part Number: LT-0293
Diameter: 3mm
Viewing Angle: 60°
Housing Color: diffused
Emitting Color: red
Nanometer: 625
MCD typ.: 20 mcd
MCD max.: 30 mcd
mA typ.: 22 mA
V typ.: 3,5 V
V max.: 5,0 V

Light emitting diodes with integrated microcircuits are currently most wanted. Ideal for modelling or industry use.

This blinking LED has best benchmark data to be supplied to every kind of use. The microcircuit has been integrated into the epoxy already.





## Blink LED (red)



Part Number: LT-0294
Diameter: 3mm
Viewing Angle: 60°
Housing Color: diffused
Emitting Color: red
Nanometer: 640
MCD typ.: 200 mcd
MCD max.: 220 mcd
mA typ.: 22 mA
V typ.: 3,5 V
V max.: 5,0 V

Light emitting diodes with integrated microcircuits are currently most wanted. Ideal for modelling or industry use.

This blinking LED has best benchmark data to be supplied to every kind of use. The microcircuit has been integrated into the epoxy already.





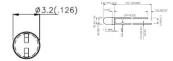
## **Blink LED (yellow)**



Part Number: LT-0295
Diameter: 3mm
Viewing Angle: 60°
Housing Color: diffused
Emitting Color: yellow
Nanometer: 588
MCD typ.: 10 mcd
MCD max.: 20 mcd
mA typ.: 22 mA
V typ.: 3,5 V
V max.: 5,0 V

Light emitting diodes with integrated microcircuits are currently most wanted. Ideal for modelling or industry use.

This blinking LED has best benchmark data to be supplied to every kind of use. The microcircuit has been integrated into the epoxy already.





## Blink LED (green)



Part Number: LT-0296
Diameter: 3mm
Viewing Angle: 60°
Housing Color: diffused
Emitting Color: green
Nanometer: 568
MCD typ.: 15 mcd
MCD max.: 25 mcd
mA typ.: 22 mA
V typ.: 3,5 V
V max.: 5,0 V

Light emitting diodes with integrated microcircuits are currently most wanted. Ideal for modelling or industry use.

This blinking LED has best benchmark data to be supplied to every kind of use. The microcircuit has been integrated into the epoxy already.





## Blink LED (blue)



Part Number: LT-0297
Diameter: 3mm
Viewing Angle: 60°
Housing Color: diffused
Emitting Color: blue
Nanometer: 466
MCD typ.: 45 mcd
MCD max.: 50 mcd
mA typ.: 15 mA
V typ.: 3,5 V
V max.: 5,0 V

Light emitting diodes with integrated microcircuits are currently most wanted. Ideal for modelling or industry use.

This blinking LED has best benchmark data to be supplied to every kind of use. The microcircuit has been integrated into the epoxy already.





# Superbright LED (golden white)



Part Number: LT-0325

Diameter: 3mm Viewing Angle: 60°

Housing Color: transparent Emitting Color: golden white

MCD typ.: 1500 mcd MCD max.: 1800 mcd mA test.: 20 mcd mA typ.: 30 mA V typ.: 3,2 V The name YolDal is currently resounded throughout every land. Their new LEDs are a harmonical alternative to common (cold) white LEDs. Qualified for modelling and ambience of living space. If you have any questions regarding alternative indoor and outdoor lighting please let us know.









### **Superbright LED (sunny white)**



Part Number: LT-0326 Diameter: 3mm Viewing Angle: 60° Housing Color: clear

Emitting Color: sunny white

MCD typ.: 1500 mcd MCD max.: 1800 mcd mA test.: 20 mcd mA typ.: 30 mA V typ.: 3,2 V The name YolDal is currently resounded throughout every land. Their new LEDs are a harmonical alternative to common (cold) white LEDs. Qualified for modelling and ambience of living space. If you have any questions regarding alternative indoor and outdoor lighting please let us know.







# **Superbright LED (white)**



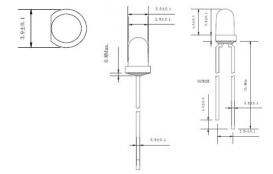
Diameter: 3mm Viewing Angle: 26°

Part Number: LT-0330

Housing Color: clear Emitting Color: white MCD typ.: 6000 mcd MCD max.: 8000 mcd Kelvin typ.: 6500 mcd mA test.: 20 mcd mA typ.: 20 mA V typ.: 3,2 V

V max.: 3,6 V

- Brightest selections
- Long lifetime
- Excellent quality
- Very good price-performance ratio





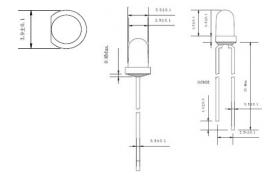
# **Superbright LED (yellow)**



Part Number: LT-0332
Diameter: 3mm
Viewing Angle: 28°
Housing Color: clear
Emitting Color: yellow
Nanometer: 590
MCD typ.: 3000 mcd
mA test.: 20 mcd
mA typ.: 20 mA

V typ.: 1,8 V V max.: 2,2 V

- Brightest selections
- Long lifetime
- Excellent quality
- Very good price-performance ratio





# **IR LED (infrared)**



Part Number: LT-0427

Diameter: 3mm Viewing Angle: 30° Housing Color: clear Emitting Color: infrared

Nanometer: 880 MCD min.: 7 mcd MCD typ.: 20 mcd mA test.: 20 mcd mA typ.: 20 mA V typ.: 1,3 V V max.: 1,6 V The new infrared LED with 50mA (max). The capacistance is 90pF at f = 1 MHz.







## **Superbright LED (red)**



Part Number: LT-0465

Diameter: 3mm
Viewing Angle: 35°
Housing Color: clear
Emitting Color: red
Nanometer: 635
MCD typ.: 3500 mcd
mA test.: 20 mcd
mA typ.: 20 mA
V typ.: 2,0 V
V max.: 2,5 V

- Brightest selections
- Long lifetime
- Excellent quality
- Very good price-performance ratio









## **Superbright LED (orange)**



Part Number: LT-0550
Diameter: 3mm
Viewing Angle: 20°
Housing Color: clear
Emitting Color: orange
Nanometer: 610
MCD typ.: 3500 mcd
MCD max.: 5000 mcd
mA test.: 35 mcd
mA typ.: 20 mA
V typ.: 2,0 V
V max.: 2,4 V

The new generation superbright LED. Its new chip with doubled brightness and a real Orange (and not light red!) provides a full range of possibilities and applications.

- Brightest selections
- Long lifetime
- Excellent quality
- Very good price-performance ratio



V sperr.: 5.0 V



## Standard LED (red)



Part Number: LT-0551

Diameter: 3mm
Viewing Angle: 35°
Housing Color: clear
Emitting Color: red
Nanometer: 621
MCD typ.: 2200 mcd
mA test.: 20 mcd
mA typ.: 20 mA
V typ.: 2,0 V
V max.: 2,5 V

- Brightest selections
- Long lifetime
- Excellent quality
- Very good price-performance ratio







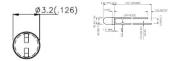


### **Low Current LED (green)**



Part Number: LT-0666
Diameter: 3mm
Viewing Angle: 40°
Housing Color: diffused
Emitting Color: green
Nanometer: 568
MCD typ.: 30 mcd
mA test.: 20 mcd
mA typ.: 2 mA
V typ.: 2.2 V

V max.: 2.5 V V sperr.: 5.0 V For extra energy saving applications. Low current LEDs need only 1-2mA to emitt light. This is a new and exciting possibility for every designer to keep the energy management as low as possible.





### **Low Current LED (yellow)**



Part Number: LT-0667
Diameter: 3mm
Viewing Angle: 40°
Housing Color: diffused
Emitting Color: yellow
Nanometer: 588
MCD typ.: 25 mcd
mA test.: 20 mcd
mA typ.: 2 mA
V typ.: 2.1 V
V max.: 2.5 V

V sperr.: 5.0 V

For extra energy saving applications. Low current LEDs need only 1-2mA to emitt light. This is a new and exciting possibility for every designer to keep the energy management as low as possible.





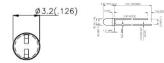
### **Low Current LED (red)**



Part Number: LT-0668
Diameter: 3mm
Viewing Angle: 40°
Housing Color: diffused
Emitting Color: red
Nanometer: 625
MCD typ.: 30 mcd
mA test.: 20 mcd
mA typ.: 2 mA
V typ.: 2.0 V
V max.: 2.5 V

V sperr.: 5.0 V

For extra energy saving applications. Low current LEDs need only 1-2mA to emitt light. This is a new and exciting possibility for every designer to keep the energy management as low as possible.





### **Low Current LED (red)**



Part Number: LT-0669
Diameter: 3mm
Viewing Angle: 40°
Housing Color: diffused
Emitting Color: red
Nanometer: 640
MCD typ.: 60 mcd
mA test.: 20 mcd
mA typ.: 2 mA
V typ.: 1.85 V
V max.: 2.50 V

V sperr.: 5.00 V

For extra energy saving applications. Low current LEDs need only 1-2mA to emitt light. This is a new and exciting possibility for every designer to keep the energy management as low as possible.





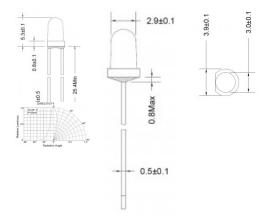
# UV LED (UV)



Part Number: LT-0842 Diameter: 3mm Viewing Angle: 30° Housing Color: clear Emitting Color: UV Nanometer: 395 Lumen typ.: 5 mcd mA test.: 20 mcd mA typ.: 25 mA V typ.: 3.5 V V max.: 3.8 V

V sperr.: 5.0 V

- Brightest selections
- Long lifetime
- Excellent quality
- Very good price-performance ratio





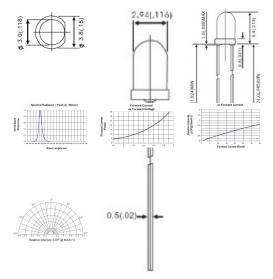
## **Superbright LED (blue)**



Part Number: LT-0849
Diameter: 3mm
Viewing Angle: 20°
Housing Color: clear
Emitting Color: blue
Nanometer: 470
MCD typ.: 5200 mcd
mA test.: 20 mcd
mA typ.: 35 mA
V typ.: 3,5 V
V max.: 4,0 V
V sperr.: 5,0 V

Selected high performance LED for every application range. Very good choice for all applications where the price is important, too!

This LED generation ais characterized by long lifetime, real colors and quality of





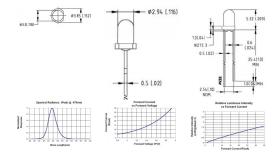
## **Superbright LED (blue)**



Part Number: LT-0850
Diameter: 3mm
Viewing Angle: 35°
Housing Color: clear
Emitting Color: blue
Nanometer: 470
MCD typ.: 3500 mcd
MCD max.: 5000 mcd
mA test.: 20 mcd
mA typ.: 35 mA
V typ.: 3,6 V

V max.: 4,0 V V sperr.: 5,0 V Selected high performance LED for every application range. Very good choice for all applications where the price is important, too!

This LED generation ais characterized by long lifetime, real colors and quality of







## **Superbright LED (white)**

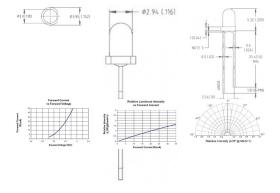


Part Number: LT-0851 Diameter: 3mm Viewing Angle: 20° Housing Color: clear Emitting Color: white

X: 0.31 Y: 0.31

MCD typ.: 12000 mcd mA test.: 20 mcd mA typ.: 35 mA V typ.: 3,6 V V max.: 4,0 V V sperr.: 5,0 V Selected high performance LED for every application range. Very good choice for all applications where the price is important, too!

This LED generation ais characterized by long lifetime, real colors and quality of





# Duo LED (red / green)



Part Number: LT-0926 Diameter: 3mm Viewing Angle: 60° Housing Color: diffused Emitting Color: red / green

mA test.: 20 mcd mA typ.: 30 mA

3pin 3mm Double LED with common cathode with two main colors and one mix color.

Nanometer: R=625 / G=568
MCD typ.: R=40 / G=35
V typ.: R=2,0 / G=2,5
V max.: R=2,2 / G=2,5

- Long lifetime







## **Duo LED with common Anode (red / green)**



Part Number: LT-0927 Diameter: 3mm Viewing Angle: 60° Housing Color: diffused Emitting Color: red / green

mA test.: 20 mcd mA typ.: 30 mA

3pin 3mm Double LED with common anode with two main colors and one mix color.

- Nanometer: R=625 / G=568

- V typ.: R=2,0 / G=2,5 - V max.: R=2,2 / G=2,5

- Long lifetime







### **Duo LED with common Anode (red / yellow)**



Part Number: LT-1061 Diameter: 3mm Viewing Angle: 60° Housing Color: diffused Emitting Color: red / yellow

mA test.: 20 mcd mA typ.: 30 mA

3pin 3mm Double LED with common anode with two main colors and one mix color.

- Nanometer: R=625 / Y=588

- V typ.: R=2,0 / Y=2,1 - V max.: R=2,2 / Y=2,5

- Long lifetime







# Duo LED (red / yellow)



Part Number: LT-1093
Diameter: 3mm
Viewing Angle: 60°
Housing Color: diffused
Emitting Color: red / yellow

mA test.: 20 mcd mA typ.: 30 mA

3pin 3mm Double LED with common cathode with two main colors and one mix color.

Nanometer: R=625 / Y=588
mcd typ.: R=40 / Y = 20
V typ.: R=2,0 / Y=2,1
V max.: R=2,2 / Y=2,5

- Long lifetime







# **UV LED (with Cree Chip) (UV)**



Part Number: LT-1106 Diameter: 3mm Viewing Angle: 26° Housing Color: clear Emitting Color: UV Nanometer: 400 mA test.: 20 mcd mA typ.: 25 mA V typ.: 3,5 V V max.: 3,8 V High efficiancy UV LED with high quality chip and long lifetime.



# Mini Constant Current Power Supply (10mA, up to 38V) with rectifier



Part Number: LT-1183 mA typ.: 10 mA V typ.: 38 V 2008 Edition with many innovations!

This new and unbelievable small constant current power supply for your LEDs works with the above mentioned output current. The forward voltage is secundary. This garanties a homogeneous brightness through the whole forward voltage range and a maximum lifetime to the connected LEDs.

The usage and operating range:

The usage is really very simple. You only have to check that the minimum input voltage is 3,8V higher than the common LED forward voltages and the maximum input voltage should not be more than 38V above the minimum input voltage. Please also have a look at the below mentioned examples.

#### What is new?

- Smaller housing for bigger range of applications
- With bridge rectifier to protect from wrong polarity
- Thermal protections: Self adjusting when too hot

#### Further Data:

Dimensions: 16.0 x 7.5 x 3.0mmMin. voltage: 3V DC oder 2V AC

- Max. voltage: 38V DC oder 26V AC
- Max. power consumption: 500mW

- Operating temperature: -25°C up to +125°C

- Input: protection against wrong polarity

- Output: wrong polarity & amp; short circuit protected

- Contacts: Soldering pads

- Drop voltage: 3,8V

- Delivery: Completly mounted & amp; tested

#### How to connect:

- Input: marked with IN (equal polarity)
- Output: Marked with A/K. A=Anode (+), K=Cathode (-)

#### Example 1:

You are going to connect 2 LEDs with 3,2 forward voltage each (mostly mentioned as Vf in common datasheets). The input voltage can change from 10,2V (3,2 + 3,2 + 3,8) till 38V (10,2 + 38,0-8gt; 38V = Max. of power supply).

#### Example 2:

You are goint to connect one white LED (3,5V). The input voltage can change from 7.3V (3,5 + 3,8) till 38V (7,3 + 38,0 -> 38V = Max. of power supply).









# Mini Constant Current Power Supply (20mA, up to 38V) with rectifier



Part Number: LT-1184 mA typ.: 20 mA V typ.: 38 V 2008 Edition with many innovations!

This new and unbelievable small constant current power supply for your LEDs works with the above mentioned output current. The forward voltage is secundary. This garanties a homogeneous brightness through the whole forward voltage range and a maximum lifetime to the connected LEDs.

The usage and operating range:

The usage is really very simple. You only have to check that the minimum input voltage is 3,8V higher than the common LED forward voltages and the maximum input voltage should not be more than 27V above the minimum input voltage. Please also have a look at the below mentioned examples.

#### What is new?

- Smaller housing for bigger range of applications
- With bridge rectifier to protect from wrong polarity
- Thermal protections: Self adjusting when too hot

#### Further Data:

- Dimensions: 16.0 x 7.5 x 3.0mm

- Min. voltage: 3V DC oder 2V AC

Max. voltage: 38V DC oder 26V AC
 Max. power consumption: 500mW

- Operating temperature: -25°C up to +125°C

- Input: protection against wrong polarity

- Output: wrong polarity & amp; short circuit protected

- Contacts: Soldering pads

- Drop voltage: 3,8V

- Delivery: Completly mounted & amp; tested

#### How to connect:

- Input: marked with IN (equal polarity)
- Output: Marked with A/K. A=Anode (+), K=Cathode (-)

#### Example 1:

You are going to connect 2 LEDs with 3,2 forward voltage each (mostly mentioned as Vf in common datasheets). The input voltage can change from 10,2V (3,2 + 3,2 + 3,8) till 37,2V (10,2 + 27,0).

#### Example 2:

You are goint to connect one white LED (3,5V). The input voltage can change from 7.3V (3,5 + 3,8) till 34,3V (7,3 + 27,0).









# Mini Constant Current Power Supply (30mA, up to 38V) with rectifier



Part Number: LT-1185 mA typ.: 30 mA V typ.: 38 V 2008 Edition with many innovations!

This new and unbelievable small constant current power supply for your LEDs works with the above mentioned output current. The forward voltage is secundary. This garanties a homogeneous brightness through the whole forward voltage range and a maximum lifetime to the connected LEDs.

The usage and operating range:

The usage is really very simple. You only have to check that the minimum input voltage is 3,8V higher than the common LED forward voltages and the maximum input voltage should not be more than 18V above the minimum input voltage. Please also have a look at the below mentioned examples.

#### What is new?

- Smaller housing for bigger range of applications
- With bridge rectifier to protect from wrong polarity
- Thermal protections: Self adjusting when too hot

#### Further Data:

- Dimensions: 16.0 x 7.5 x 3.0mm

- Min. voltage: 3V DC oder 2V AC

Max. voltage: 38V DC oder 26V AC
 Max. power consumption: 500mW

- Operating temperature: -25°C up to +125°C

- Input: protection against wrong polarity

- Output: wrong polarity & amp; short circuit protected

- Contacts: Soldering pads

- Drop voltage: 3,8V

- Delivery: Completly mounted & amp; tested

#### How to connect:

- Input: marked with IN (equal polarity)
- Output: Marked with A/K. A=Anode (+), K=Cathode (-)

#### Example 1:

You are going to connect 2 LEDs with 3,2 forward voltage each (mostly mentioned as Vf in common datasheets). The input voltage can change from 10,2V (3,2 + 3,2 + 3,8) till 28,2V (10,2 + 18,0).

#### Example 2:

You are goint to connect one white LED (3,5V). The input voltage can change from 7.3V (3,5 + 3,8) till 25,3V (7,3 + 18,0).









### Mini Constant Current Power Supply (10mA, up to 37V)



Part Number: LT-1212 mA typ.: 10 mA V typ.: 37 V 2008 Edition with many innovations!

This new and unbelievable small constant current power supply for your LEDs works with the above mentioned output current. The forward voltage is secundary. This garanties a homogeneous brightness through the whole forward voltage range and a maximum lifetime to the connected LEDs.

The usage and operating range:

The usage is really very simple. You only have to check that the minimum input voltage is 2,5V higher than the common LED forward voltages and the maximum input voltage should not be more than 37V above the minimum input voltage. Please also have a look at the below mentioned examples.

What is new?

- Smaller housing for bigger range of applications
- Thermal protections: Self adjusting when too hot

Further Data:

- Dimensions:  $16.0 \times 5.5 \times 2.5 \text{mm}$ 

Min. voltage: 1,5V DCMax. voltage: 37V DC

- Max. power consumption: 500mW

- Operating temperature: -25°C up to +125°C

- Output: wrong polarity & amp; short circuit protected

- Contacts: Soldering pads

- Drop voltage: 2,5V

- Delivery: Completly mounted & amp; tested

How to connect:

- Input: marked with + and (watch polarity)
- Output: Marked with A/K. A=Anode (+), K=Cathode (-)

#### Example 1:

You are going to connect 2 LEDs with 3,2 forward voltage each (mostly mentioned as Vf in common datasheets). The input voltage can change from 8,9V (3,2 + 3,2 + 2,5) till 37V (8,9 + 37,0-8gt; 37V = Max. of power supply).

#### Example 2:

You are goint to connect one white LED (3,5V). The input voltage can change from 6.0V (3,5 + 2,5) till 37V (6,0 + 37,0 -> 37V = Max. of power supply).









### Mini Constant Current Power Supply (20mA, up to 37V)



Part Number: LT-1213 mA typ.: 20 mA V typ.: 37 V 2008 Edition with many innovations!

This new and unbelievable small constant current power supply for your LEDs works with the above mentioned output current. The forward voltage is secundary. This garanties a homogeneous brightness through the whole forward voltage range and a maximum lifetime to the connected LEDs.

The usage and operating range:

The usage is really very simple. You only have to check that the minimum input voltage is 2,5V higher than the common LED forward voltages and the maximum input voltage should not be more than 27V above the minimum input voltage. Please also have a look at the below mentioned examples.

What is new?

- Smaller housing for bigger range of applications
- Thermal protections: Self adjusting when too hot

Further Data:

- Dimensions: 16.0 x 5,5 x 2,5mm

Min. voltage: 1,5V DCMax. voltage: 37V DC

- Max. power consumption: 500mW

- Operating temperature: -25°C up to +125°C

- Output: wrong polarity & amp; short circuit protected

- Contacts: Soldering pads

- Drop voltage: 2,5V

- Delivery: Completly mounted & amp; tested

How to connect:

- Input: marked with + and (watch polarity)
- Output: Marked with A/K. A=Anode (+), K=Cathode (-)

#### Example 1:

You are going to connect 2 LEDs with 3,2 forward voltage each (mostly mentioned as Vf in common datasheets). The input voltage can change from 8,9V (3,2 + 3,2 + 2,5) till 35,9V (8,9 + 27,0).

#### Example 2:

You are goint to connect one white LED (3,5V). The input voltage can change from 6.0V (3,5 + 2,5) till 33,0V (6,0 + 27,0).









### Mini Constant Current Power Supply (30mA, up to 37V)



Part Number: LT-1214 mA typ.: 30 mA V typ.: 37 V 2008 Edition with many innovations!

This new and unbelievable small constant current power supply for your LEDs works with the above mentioned output current. The forward voltage is secundary. This garanties a homogeneous brightness through the whole forward voltage range and a maximum lifetime to the connected LEDs.

The usage and operating range:

The usage is really very simple. You only have to check that the minimum input voltage is 2,5V higher than the common LED forward voltages and the maximum input voltage should not be more than 18V above the minimum input voltage. Please also have a look at the below mentioned examples.

What is new?

- Smaller housing for bigger range of applications
- Thermal protections: Self adjusting when too hot

Further Data:

- Dimensions: 16.0 x 5,5 x 2,5mm

Min. voltage: 1,5V DCMax. voltage: 37V DC

- Max. power consumption: 500mW

- Operating temperature: -25°C up to +125°C

- Output: wrong polarity & amp; short circuit protected

- Contacts: Soldering pads

- Drop voltage: 2,5V

- Delivery: Completly mounted & amp; tested

How to connect:

- Input: marked with + and (watch polarity)
- Output: Marked with A/K. A=Anode (+), K=Cathode (-)

#### Example 1:

You are going to connect 2 LEDs with 3,2 forward voltage each (mostly mentioned as Vf in common datasheets). The input voltage can change from 8,9V (3,2 + 3,2 + 2,5) till 26,9V (8,9 + 18,0).

#### Example 2:

You are goint to connect one white LED (3,5V). The input voltage can change from 6.0V (3,5 + 2,5) till 24,0V (6,0 + 18,0).









#### **Ultrabright LED (white)**



Part Number: LT-1401 Diameter: 3mm Viewing Angle: 20° Housing Color: clear Emitting Color: white

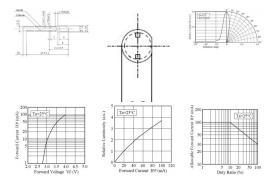
X: 0,310 Y: 0,310

MCD min.: 15500 mcd MCD max.: 22000 mcd mA test.: 20 mcd mA typ.: 30 mA V typ.: 3,2 V V max.: 3,5 V The top version with new DS chip!

The NSPW-300DS is the follower of the BS version and comes with a multiple of brightness of the former modell. This is possible because of an advanced chip, new materials and the well known production quality of Nichia products.

These high performance LEDs for highest demands are convincing by features like long lifetime, true colors and processing quality. Perfected manufacturing sequences guarantie a steady top production standart up to the last detail that no second manufacturer provides that way.

Applications with Nichia LEDs maybe more cost intensive than applications with low budget LEDs of course but a lot more reliable and brilliant, too. If it is not a low cost project and your name stands for the quality you are making the best choice with these LEDs.





### **Imprint**







LED-TECH.DE optoelectronics Showroom

Director: Stefan Lenz Am Schürmannshütt 38B D-47441 Moers

Phone: (+49) 2841 / 97 91 7-0 Fax: (+49) 2841 / 97 91 7-29

Further we want to point at pictures, graphics and descriptions as well as the pagelayout itself which are all subject to copyright. Every offence will be prosecuted.

All mentioned prices are to be understood as gross prices including the value added tax (TAV). All offers are subject to prior sales and without commitment. Delivery times are to be understood from date of receipt of order. Mistakes and changes in prices are always reserved.



Notizer	1			

