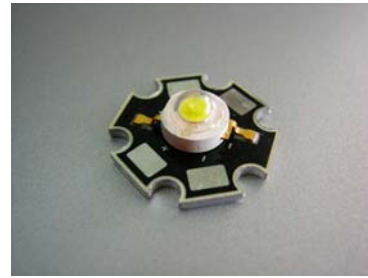


## 1W HIGH POWER STAR LED



ATTENTION: LED IS AN ELECTROSTATIC SENSITIVE DEVICE. HANDLE WITH PRECAUTION.



### ■ FEATURES

- Guaranteed minimum flux up to 110 for white, 25 for Blue, 75 for Green, 40 for Red and Yellow at 350mA
- Available in White (2,500K to 10,000K CCT), Blue, Green, Red and Yellow.
- Maximum drive current up to 700mA.
- Max junction temperature :150 °C
- No UV light
- Fast lit up response (less than 100nS)
- Patented thermal management process, industries' lowest thermal resistance from Chip base to STAR heat sink.
- Electrically neutral thermal path
- Long lifetime of 50,000 hours.
- RoHS-compliant
- Compatible with most commonly available collimators in the market.

### ■ TYPICAL APPLICATIONS

- Street Lamp to replace HPS and LPS lamps.
- Commercial lightings to replace Halogen and fluorescent lamps.
- Reading lights in Car, Bus, Aircraft and Trains.
- Portable lights such as camping light, flashlight, bicycle headlamp, mining headlamp.
- Exterior and interior decorative lightings for shops, restaurants, hotels, discos, pubs, etc
- Signage lighting.
- Landscape lightings like parks, bridges, buildings.
- Automotive headlamp, tail lights and direction lights.
- Edge-lit signs.

**1W HIGH POWER STAR LED****Flux Characteristics ( $T_j = 25^\circ\text{C}$  ;  $I_F = 350\text{mA}$ )**

Color	CCT Range (K)	Luminous Flux(lm)	Ordering Code
White	5000~6500	60~70	NPT1W0605065S
White	5000~6500	70~80	NPT1W0705065S
White	5000~6500	80~90	NPT1W0805065S
White	5000~6500	90~100	NPT1W0905065S
White	5000~6500	100~110	NPT1W1005065S
White	5000~6500	110~120	NPT1W1105065S
Warm White	2700~3300	60~70	NPT1W0602733S
Warm White	2700~3300	70~80	NPT1W0702733S
Warm White	2700~3300	80~90	NPT1W0802733S
Warm White	2700~3300	90~100	NPT1W0902733S
Warm White	2700~3300	100~110	NPT1W1002733S

Color	Wave Length (nm)	Luminous Flux(lm)	Ordering Code
Red	620~630	30~40	NPT1R0306263S
Red	620~630	40~50	NPT1R0406263S
Yellow	585~595	30~40	NPT1Y0305859S
Yellow	585~595	40~50	NPT1Y0405859S
Blue	460~470	15~25	NPT1B0154647S
Blue	460~470	25~35	NPT1B0254647S
Green	520~530	60~75	NPT1G0605253S
Green	520~530	75~90	NPT1G0755253S

Note: NPT maintains a tolerance of +/- 4% on flux measurements.

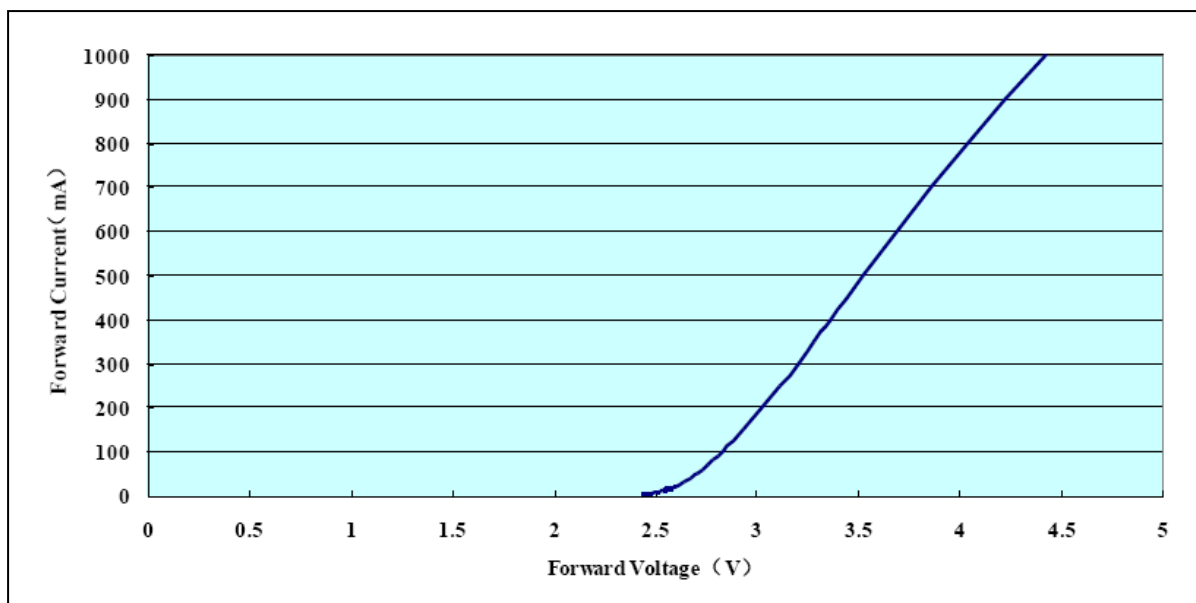
**1W HIGH POWER STAR LED**

**Characteristics**

Characteristics	Unit	Minimum	Typical	Maximum
Viewing Angle	degrees	115	120	125
DC forward current – White >90lm	mA			700
DC forward current – White <90lm and colors	mA			500
DC pulse current (@ 1kHz, 10% duty cycle)	mA			800
Reverse voltage	V			5
Reverse Leakage current @5V	uA			10
Forward Voltage @350mA – White, Green, Blue	V	3.0	3.4	3.6
Forward Voltage @350mA – Red, Yellow	V	2.0	2.4	2.6
LED Junction Temperature – White >90lm	°C			150
LED Junction Temperature – others	°C			120
Suggested operating heat sink temperature	°C			85
Storage temperature	°C	-40		100
Electrostatic Discharge Threshold (HBM)	V			2000

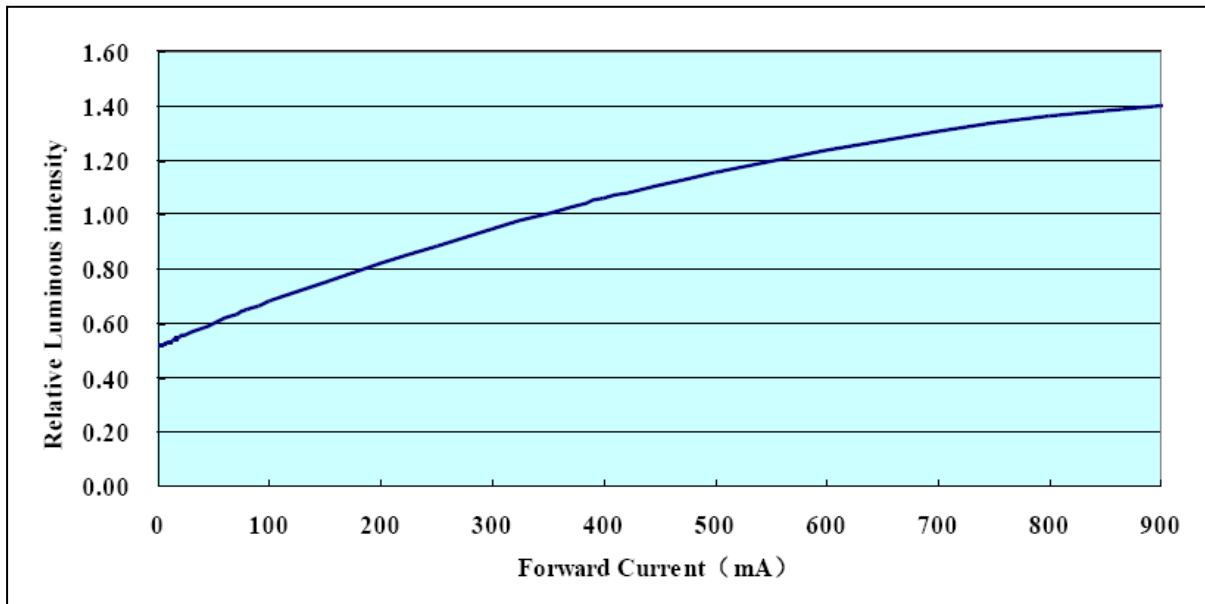
Note: NPT maintains a tolerance of +/- 0.1V on Forward Voltage measurements.

**Electrical Characteristics (T<sub>i</sub> = 25 °C)**

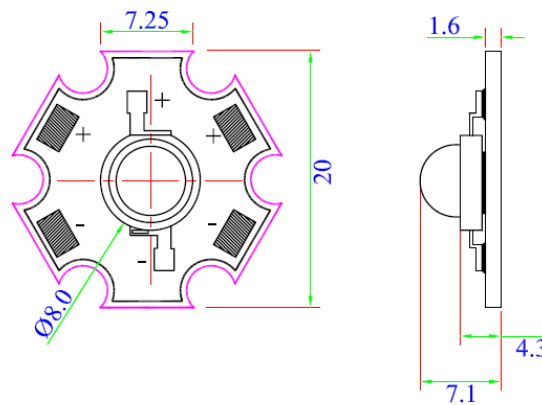


**1W HIGH POWER STAR LED**

**Relative Flux vs Current ( $T_i = 25\text{ }^\circ\text{C}$ )**



**Outline dimensions**



Note:

1. All units in mm
2. Tolerance +/- 0.25mm