

Features

- Package in 8mm tape on a 7" diameter reel.
- Compatible with automatic placement equipment.
- Compatible with infrared and vapor phase reflow solder process.
- Multi-color type.
- Pb-free.
- RoHS compliant version.



Descriptions

- The SMD LED is much smaller than lead frame type components, thus enable smaller board size, higher packing density and reduced storage space and finally smaller equipment to be obtained.
- Light weight makes them ideal for miniature applications.

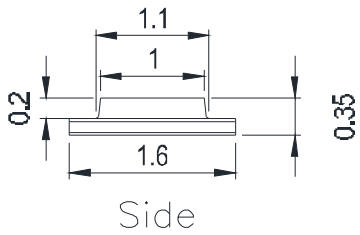
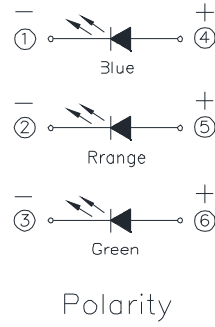
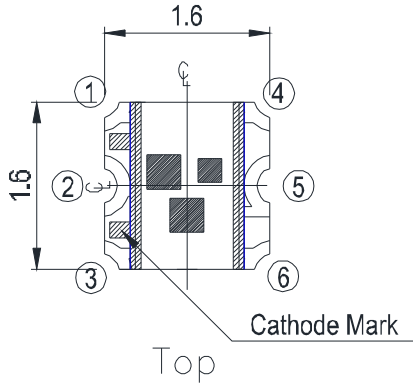
Applications

- Automotive.
- Portable equipment.
- General use.

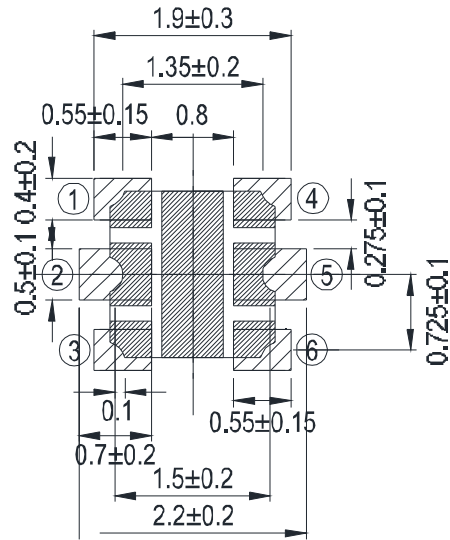
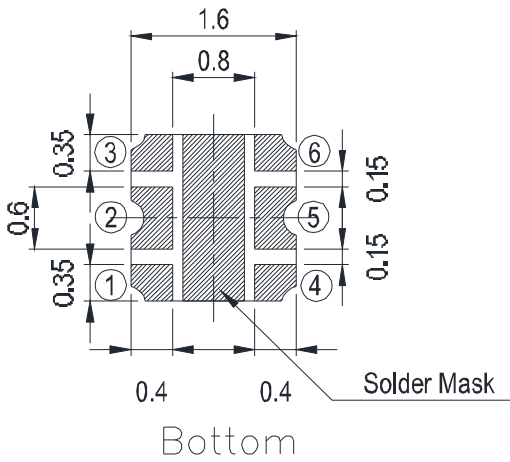
Device Selection Guide

| Chip | | | Lens Color |
|------|----------|-----------------|-------------|
| Type | Material | Emitted Color | |
| R | AlInGaN | Brilliant Red | Water Clear |
| G | InGaN | Brilliant Green | |
| B | InGaN | Blue | |

Package Outline Dimensions



Recommend soldering pad



Note: The tolerances unless mentioned is ±0.1mm, Unit = mm

Absolute Maximum Ratings (Ta=25°C)

| Parameter | Symbol | Rating | Unit |
|---|------------------|-----------------------------|------|
| Reverse Voltage | V _R | 5 | V |
| Forward Current | I _F | R6:25 GH:25 BH:25 | mA |
| Operating Temperature | T _{opr} | -40 ~ +85 | °C |
| Storage Temperature | T _{stg} | -40 ~ +90 | °C |
| Soldering Temperature | T _{sol} | 260 (for 5 seconds) | °C |
| Electrostatic Discharge | ESD | R6:2000 GH:150 BH:150 | V |
| Power Dissipation | P _d | R6:60 GH:110 BH:110 | mW |
| Peak Forward Current (Duty 1/10 @1KHz) | I _{FP} | R6:60 GH:100 BH:100 | mA |

Specific binning requirements- please contact our home office

Electro-Optical Characteristics (Ta=25°C)

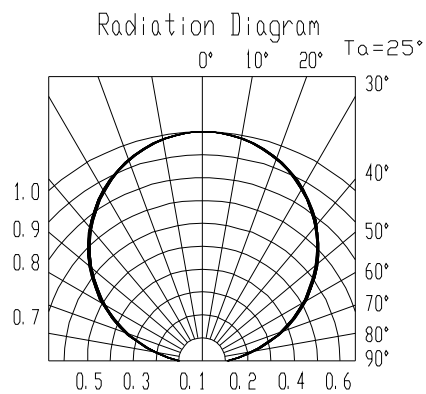
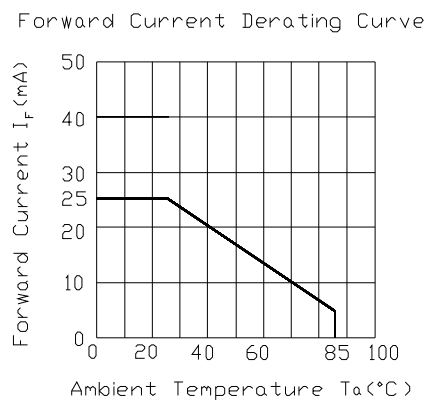
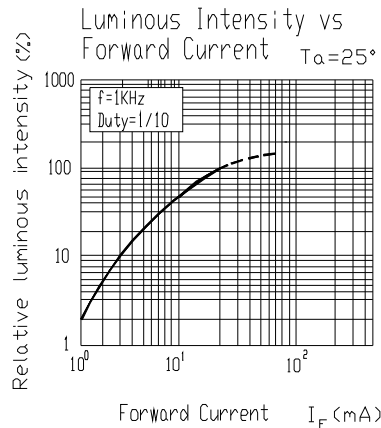
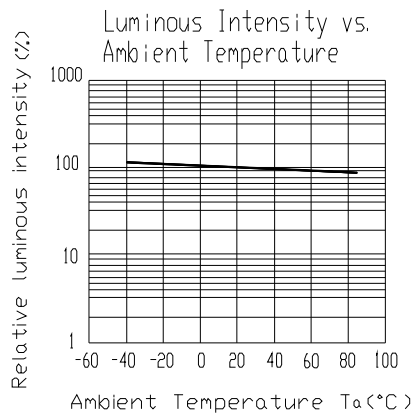
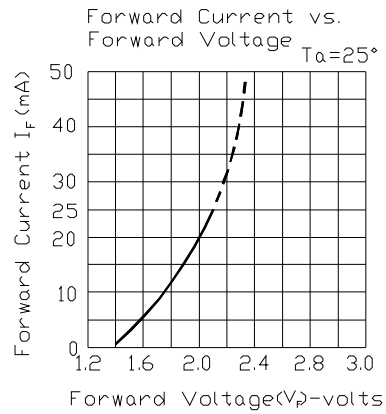
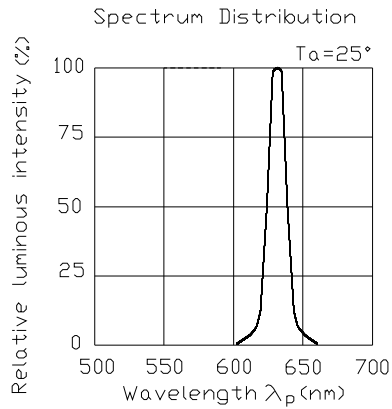
| Parameter | Symbol | Min. | Typ. | Max. | Unit | Condition |
|------------------------------|-------------------|-------|-------|-------|------|--------------------|
| Luminous Intensity | R6 | 72 | 100 | | mcd | IF=20mA |
| | Iv GH | 112 | 180 | ----- | | |
| | BH | 28.5 | 50 | | | |
| Viewing Angle | 2 θ 1/2 | ----- | 120 | ----- | deg | |
| Peak Wavelength | R6 | | 632 | | nm | |
| | λ p GH | ----- | 518 | ----- | | |
| | BH | | 468 | | | |
| Dominant Wavelength | R6 | | 624 | | nm | |
| | λ d GH | ----- | 525 | ----- | | |
| | BH | | 470 | | | |
| Spectrum Radiation Bandwidth | R6 | | 20 | | nm | |
| | Δ λ GH | ----- | 35 | ----- | | |
| | BH | | 35 | | | |
| Forward Voltage | R6 | | 2.0 | 2.4 | V | |
| | V _F GH | ----- | 3.3 | 3.9 | | |
| | BH | | 3.3 | 3.9 | | |
| Reverse Current | R6 | | | 10 | μ A | V _R =5V |
| | I _R GH | ----- | ----- | 50 | | |
| | BH | | | 50 | | |

Notes:

1. Tolerance of Luminous Intensity ± 10%
2. Tolerance of Dominant Wavelength ± 1nm
3. Tolerance of Forward Voltage ± 0.1V

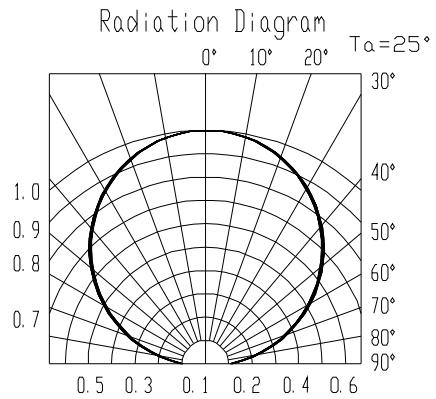
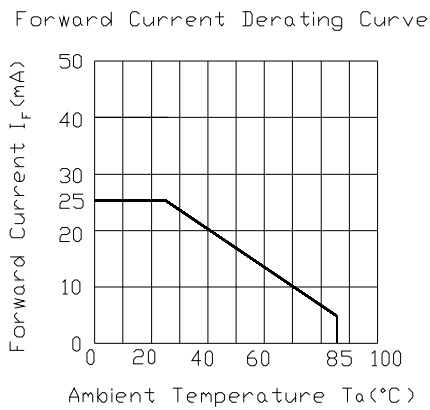
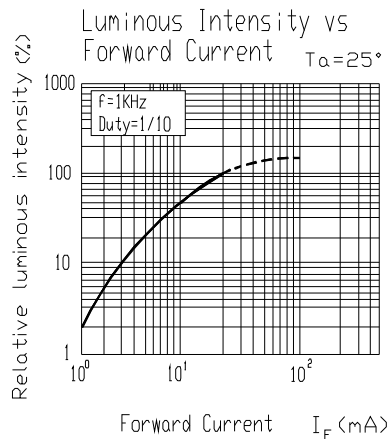
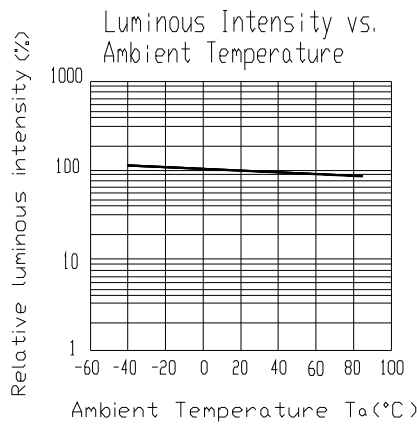
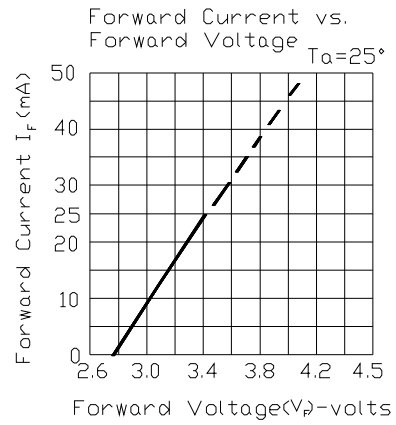
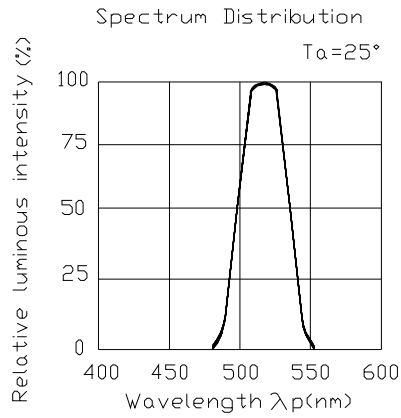
Typical Electro-Optical Characteristics Curves

R6



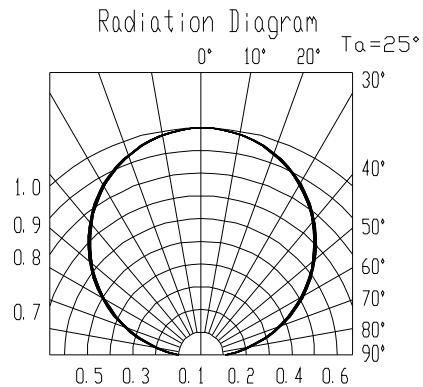
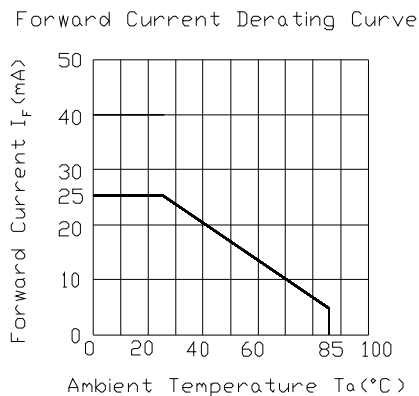
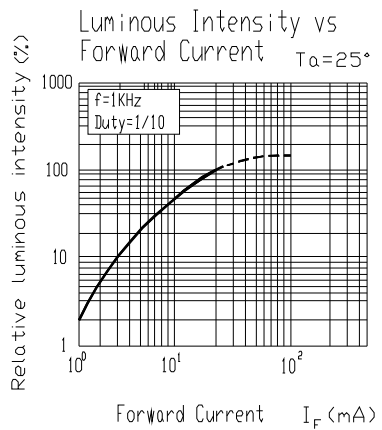
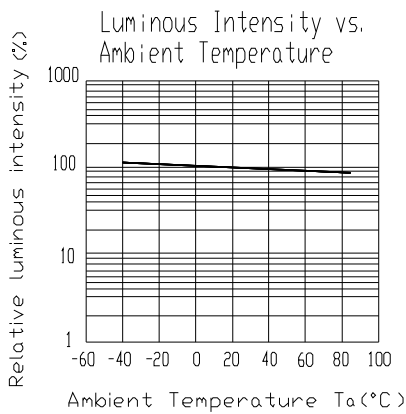
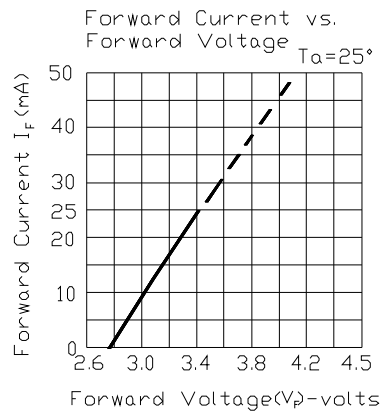
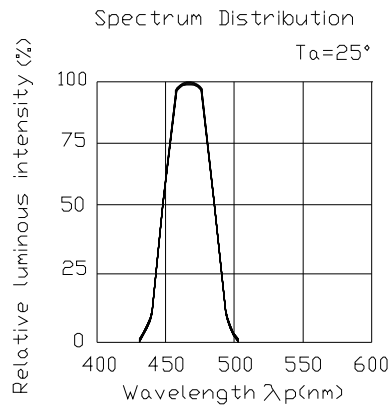
Typical Electro-Optical Characteristics Curves

GH

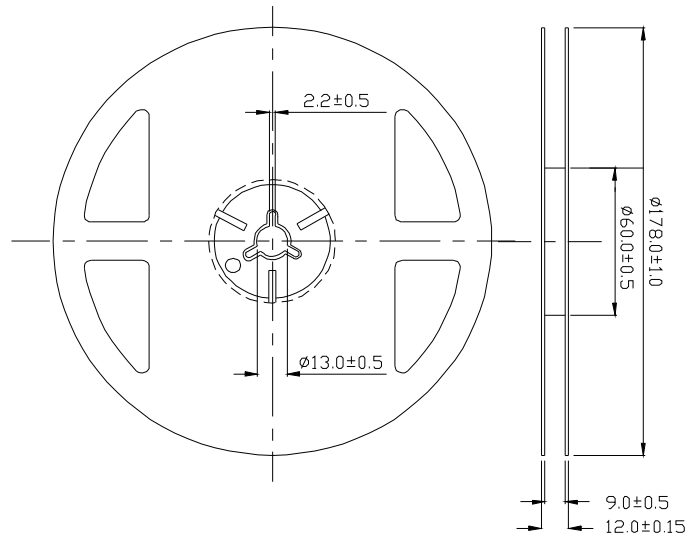


Typical Electro-Optical Characteristics Curves

BH

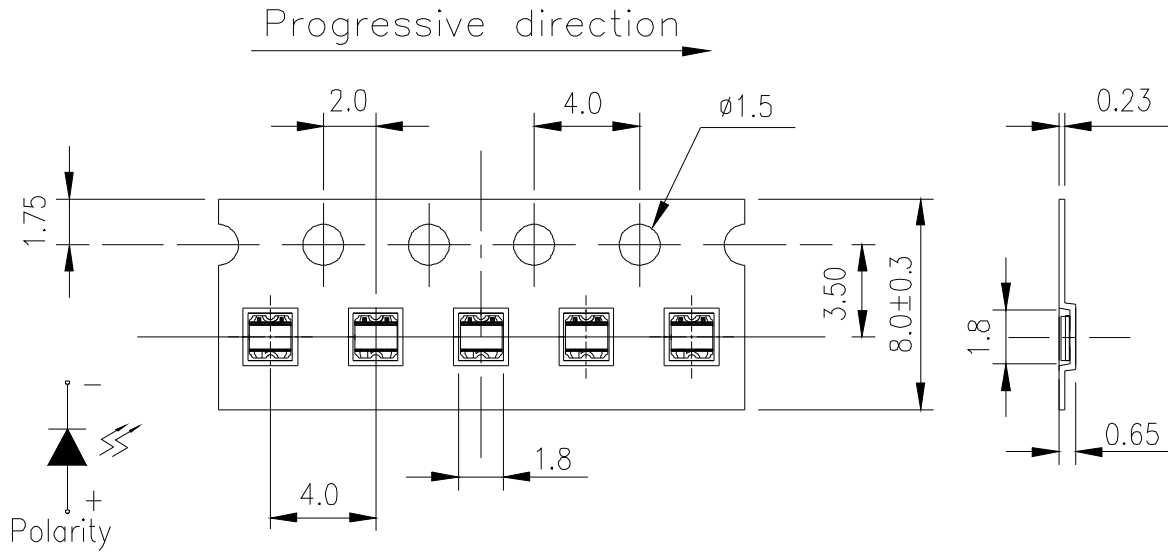


Reel Dimensions



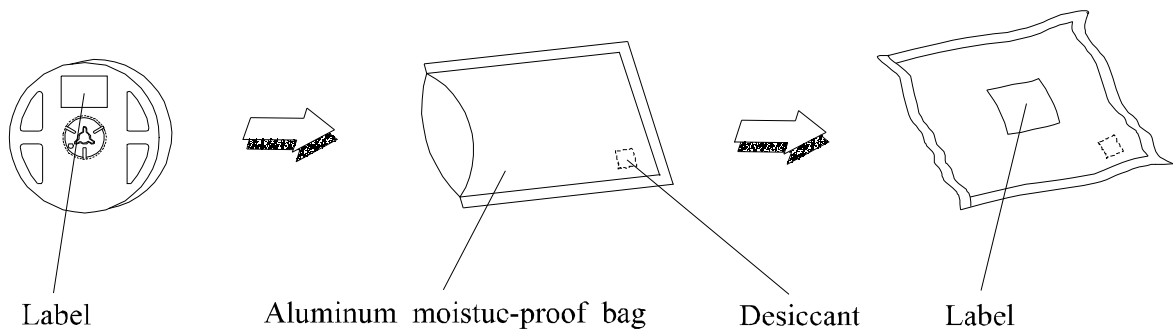
Note: The tolerances unless mentioned is ± 0.1 mm ,Unit = mm

Carrier Tape Dimensions: Loaded quantity 2000 PCS per reel



Note: The tolerances unless mentioned is $\pm 0.1\text{mm}$,Unit = mm

Moisture Resistant Packaging



Reliability Test Items And Conditions

The reliability of products shall be satisfied with items listed below.

Confidence level : 90%

LTPD : 10%

| No. | Items | Test Condition | Test Hours/Cycles | Sample Size | Ac/Re |
|-----|----------------------------------|--|-------------------|-------------|-------|
| 1 | Reflow Soldering | Temp. : 260°C ±5°C 5sec. | 6 Min. | 22 PCS. | 0/1 |
| 2 | Temperature Cycle | H : +100°C 15min ∫ 5 min L : -40°C 15min | 300 Cycles | 22 PCS. | 0/1 |
| 3 | Thermal Shock | H : +100°C 5min ∫ 10 sec L : -10°C 5min | 300 Cycles | 22 PCS. | 0/1 |
| 4 | High Temperature Storage | Temp. : 100°C | 1000 Hrs. | 22 PCS. | 0/1 |
| 5 | Low Temperature Storage | Temp. : -40°C | 1000 Hrs. | 22 PCS. | 0/1 |
| 6 | DC Operating Life | IF = 20 mA | 1000 Hrs. | 22 PCS. | 0/1 |
| 7 | High Temperature / High Humidity | 85°C / 85% RH | 1000 Hrs. | 22 PCS. | 0/1 |

Precautions For Use

1. Customer must apply resistors for protection , otherwise slight a voltage shift will cause a big current change.

2. Storage

2.1 Do not open moisture proof bag before the products are ready to use.

2.2 Before opening the package, the LEDs should be kept at 30°C or less and 90%RH or less.

2.3 The LEDs should be used within a year.

2.4 After opening the package, the LEDs should be kept at 30°C or less and 70%RH or less.

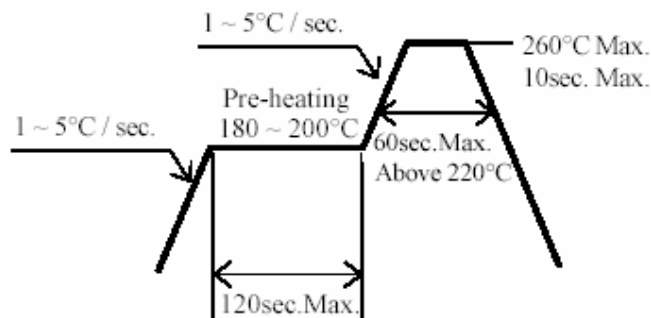
2.5 The LEDs should be used within 168 hours (7 days) after opening the package.

2.6 If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions.

Baking treatment : 60±5°C for 24 hours.

3. Soldering Condition

3.1 Pb-free solder temperature profile



3.2 Reflow soldering should not be done more than two times.

3.3 When soldering, do not put stress on the LEDs during heating.

3.4 After soldering, do not warp the circuit board.

4. Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 280°C for 3 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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