

UV GT-M3528-XX



Product Description

SMD 3528 UVA led series WAVELENGTH 360-400nm for UV Curing, photo catalyst & sensor lighting with Unique and perfect raw materials combination and strict reliability tests (eg: temperature shock test; high temperature aging test etc) ensures its stability and excellent performance in heat conduction and light output.

Features

- Surface mount 3.5mm x 2.8mm x 1.9mm
- Red copper base with high heat conductivity
- RoHS compliant
- > 30000Hrs
- Reflow soldering available
- Tape and reel packaging

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Application

- Digital printing / label / lithography
- Coating/glue/car paint curing
- Glue curing
- PCB exposure technology
- Security detection
- Medical use



Characteristics

Characteristics	Unit	Min.	Typical	Max.
Dimension L*W	mm		35*28	
Beam Angle θ	deg		120	
Wavelength WL	nm	360		400
Power Dissipation PD	W		0.06	
Operating Temperature Top	°C	-40		+65
Storage Temperature Tst	°C	-40		+60
Testing Point (LED) Tc	°C			60
Junction Temperature Tj	°C			115
ESD (HBM)	V			2000
Reflow Soldering(Lead-Free) ST	°C			260

Coding Rules

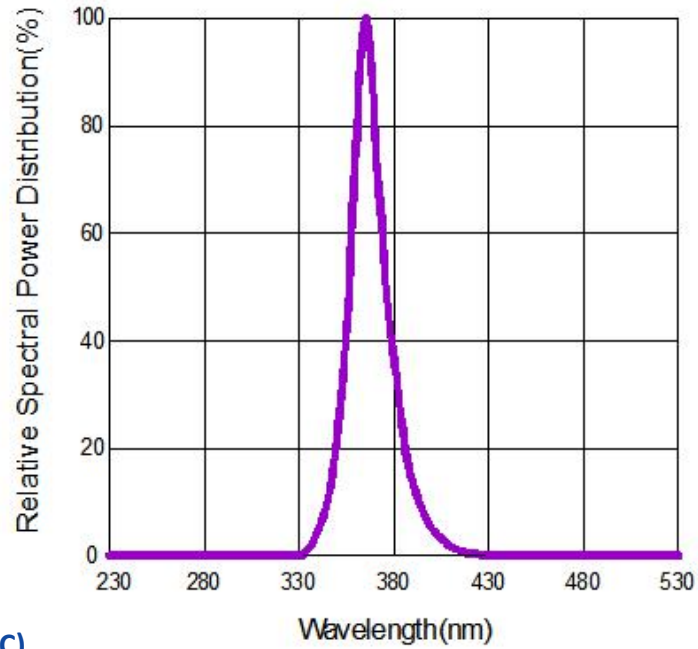
Model	GT	M	3528	X	X
Code	GT	M	Type	Emitting Color	Wavelength
Meaning	Getian	M:SMD Series	3528: 3528package	V: UV	1: 360-370nm 2: 380-390nm 3: 390-400nm 5: 370-380nm

Specifications (Tc = 25°C)

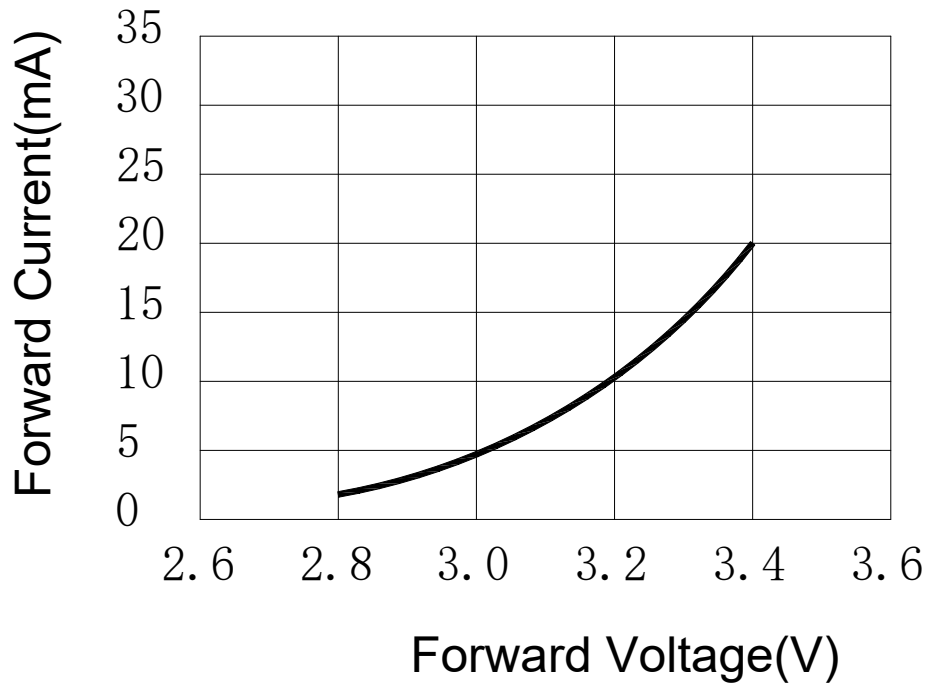
Color	Voltage (V)	Current (mA)	Wavelength (nm)	Radiation Flux (mW)	Part Number
UV	2.8-3.4	20	360-370	0.3-0.8	GT-M3528V1
	2.8-3.4	20	370-380	0.3-0.8	GT-M3528V5
	2.8-3.4	20	380-390	1-2	GT-M3528V2
	2.8-3.4	20	390-400	1-2	GT-M3528V3

Notes: Machine Tolerance $\pm 3\%$ on luminous flux; $\pm 2\text{nm}$ on wavelength.

Spectral Features (Tc = 25°C)

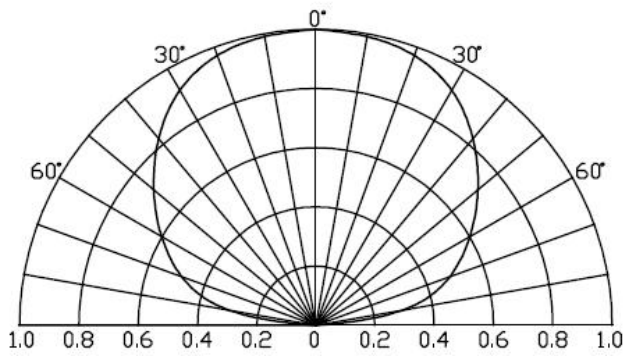


Electrical Features (Tc = 25°C)

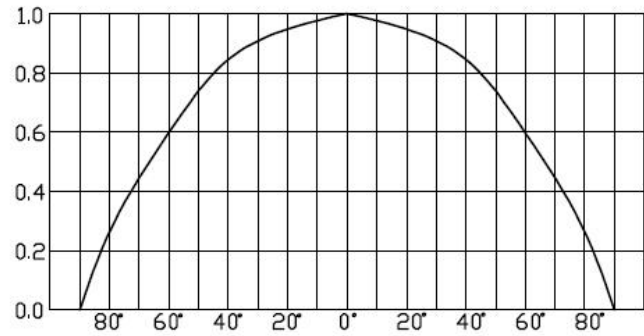


Typical Spatial Distribution (Tc = 25°C)

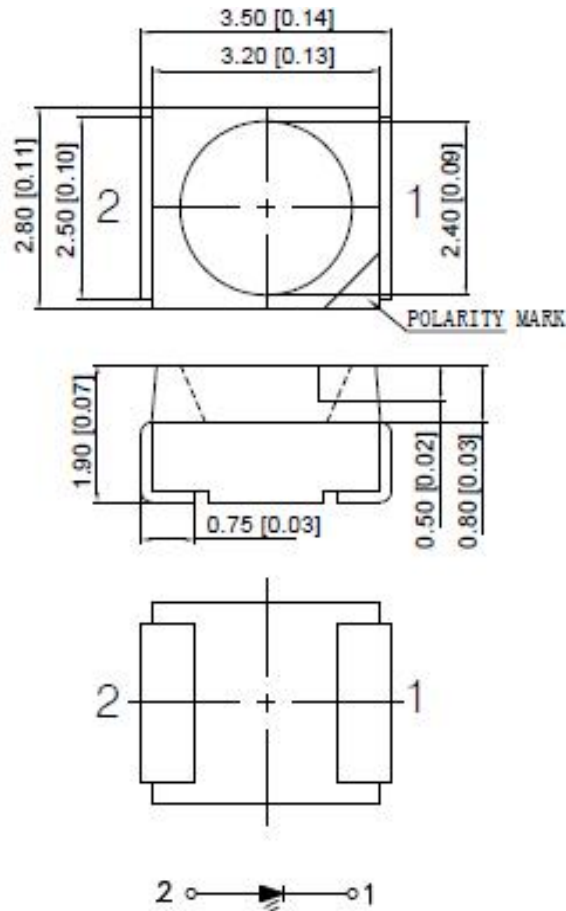
Intensity Distribution Diagram



Intensity Distribution Curve

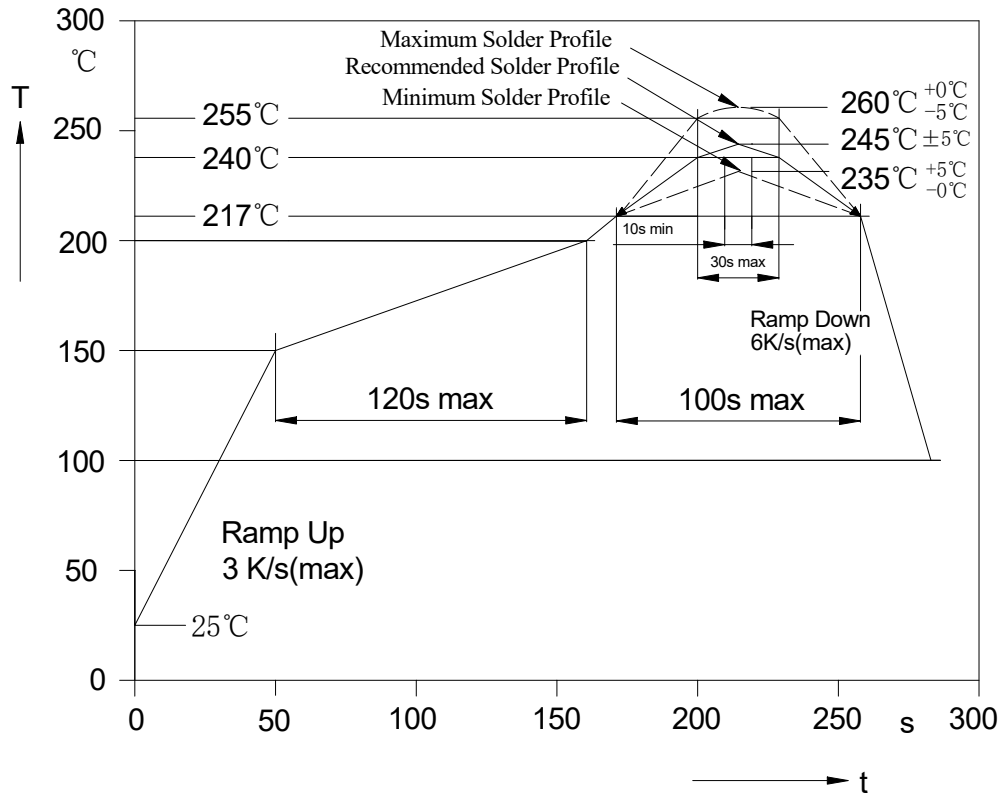


Dimensions (Unit: mm) Tolerance +/-0.2mm



Reflow Soldering

SMD-Reflow Soldering Profile for lead free soldering(Acc.to J-STD-020B)



Reflow Soldering

Item	Molding products
Preheat	180-200°C
Heat-up time	120 sec Max
Peak temperature	260°C Max
Condition of Soldering time	10sec Max

Notes:
The operational data provided above are for reference only. The actual operation should be strictly in accordance with product specifications, welding material characteristics fine-tuning parameters in the first test; Be sure to go through the first inspection for mass production, so as to avoid

Reliability Tests

Test Items	Test Conditions	Sample Qty	Ac/Re
Aging Test	IF=20MA Ta=25°C×1000hrs	22	0/1
	IF=20MA Ta=85°C×1000hrs	22	0/1
High Temperature Storage	100°C × 1000 hours	22	0/1
Low Temperature Storage	-40°C × 1000 hours	22	0/1
High Temp & Humidity	IF=20MA 85°C, 85 %RH for 1000 hours	22	0/1
Temperature Shock	-40°C × 30 minutes – +100°C × 30 minutes, 100 cycle	22	0/1
ESD (HBM)	2000V HBM/ 1 Time	10	0/1

Criteria for Judging LED Failure (Tc = 25°C)

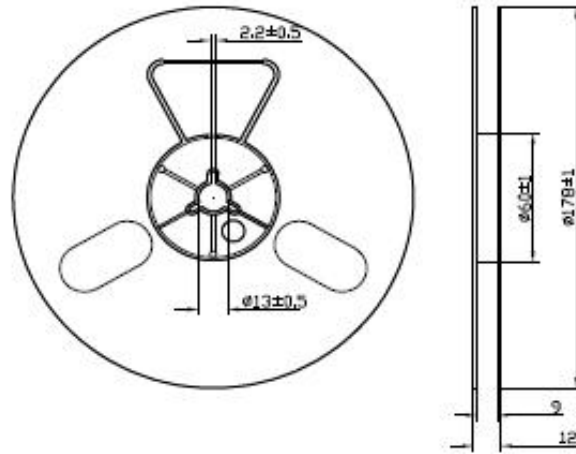
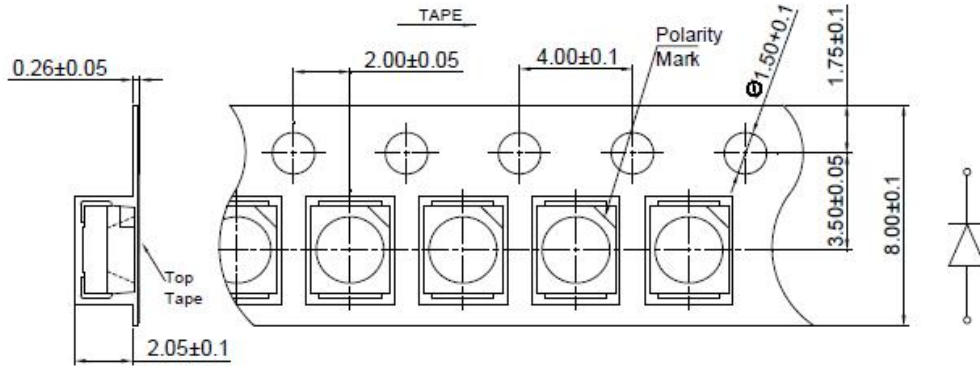
Items	Symbol	Test Conditions	Criteria for Judging LED Failure
Forward Voltage	VF	IF=20MA	>U × 1.1
Reverse Current	IR	VR=5V	IR≥10μA
Lumen	φv	IF=20MA	<S × 0.7

U refers to max value; S refers to initial value.

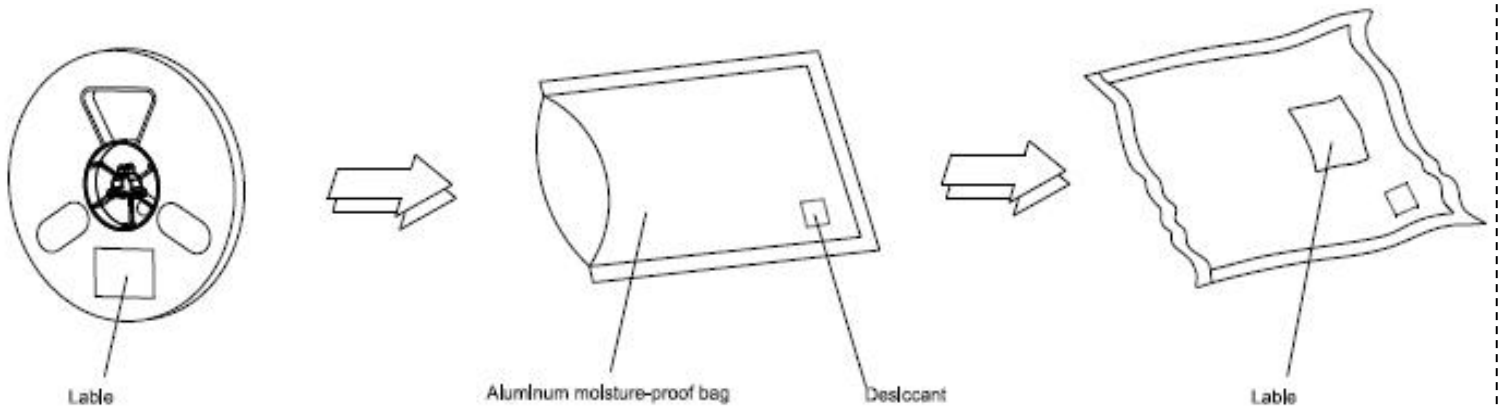
Notes: Judging criteria based on Tc=25°C.

Remarks: Test Current of Red, Amber, Yellow is 400mA, Test current for other colors is 350mA.

Packaging (Unit:mm)



Packaging: 2000pieces/ reel



Notes

Product Specifications

This is a product family data sheet without extra emphasis on a specific model. The specifications in the document refers to its general value under certain test conditions. Please consult sales representative or technical people if encounters specs that are not listed. (Tolerance should be considered.)

Soldering

1. Middle temperature solder paste is recommended to lead-free reflow soldering. The maximum temperature set up to $220\text{ }^{\circ}\text{C} \pm 5\text{ }^{\circ}\text{C}$ (the actual temperature of the tunnel furnace should be daily measured). The time of peak temperature must less than 45 seconds. Over-temperature, overtime will lead to lens off, deformation. Please do not put any pressure on the product during reflow soldering process. When the product cool to the room temperature, it can go to the following manufacturing process.
2. To protect the LED from damage, please don't impact or pile up the LEDs after reflow soldering.
3. Stencil thickness recommended 0.08mm.
4. Please don't use heating platform to solder the LEDs.

Shipment & Installation

1. Please don't multi-layer stacking, hit or drop the LEDs.
2. To avoid the led failure or deration of the lighting effects, do not burn the products' light-emitting layer by high temperature soldering iron.
3. Please don't press the silicon lens and prevent the external force to damage the LEDs.

ESD Protection

Statics or surge volt would cause LED failure. When using the products, we suggest wearing anti-static wrist strap or gloves. All devices, equipment and machinery must be grounded. Precautions should be taken to protect the products from the surge voltage generated by the devices.

Heat Dissipation

The thermal design of the end product is particularly important, please consider it seriously. Do avoid high temperature condensation on the product.

Cleaning

Recommend ethanol as the only clean solvent.

Others

The bright light emitted by LED may hurt the eyes. Do not look directly at the products when not wearing protective glasses. The strong irritant glare makes people feel uncomfortable and precautions should be taken during usage.