

PRELIMINARY SPEC



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Part Number: AA3528QR7C/D

PURPLE

Features

- Single color.
- Suitable for all SMT assembly and solder process.
- Available on tape and reel.
- Ideal for backlighting.
- Package : 1500pcs / reel.
- Moisture sensitivity level : level 4.
- RoHS compliant.

Description

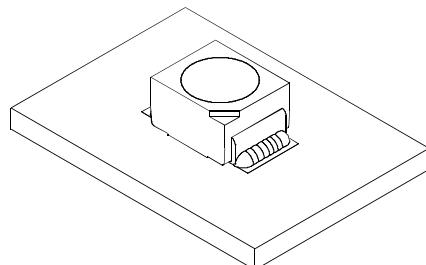
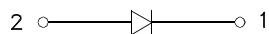
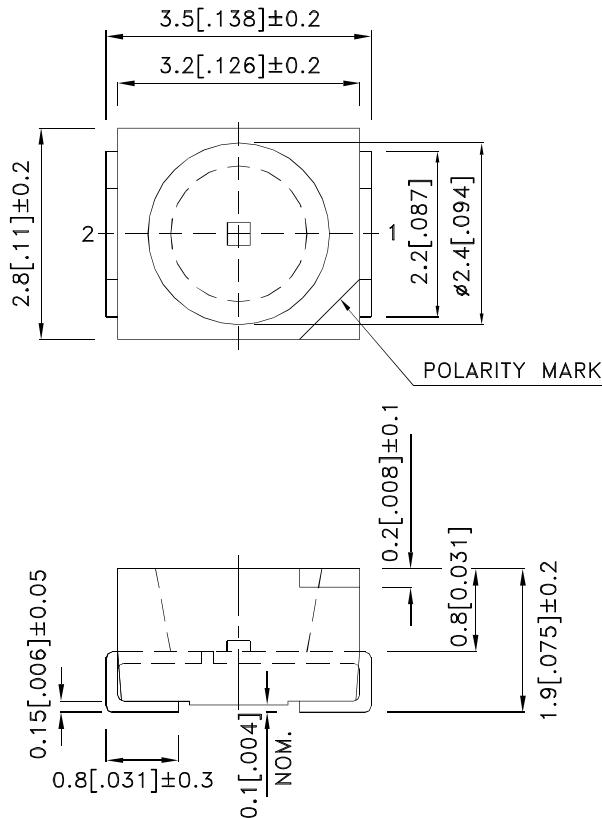
The source color devices are made with InGaN Light Emitting Diode.

Static electricity and surge damage the LEDs.

It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

All devices, equipment and machinery must be electrically grounded.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01")$ unless otherwise noted.
3. Specifications are subject to change without notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.



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Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	
AA3528QR7C/D	PURPLE (InGaN)	WATER CLEAR	110	250	120°

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
2. Luminous intensity/ luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
VF [1]	Forward Voltage	Purple	3.3	4	V	IF=20mA
IR	Reverse Current	Purple		10	uA	VR = 5V
x [2]	Chromaticity Coordinates	Purple	0.2			
y [2]			0.08			
C	Capacitance	Purple	100		pF	VF=0V;f=1MHz

Notes:

1. Forward Voltage: +/-0.1V.
2. Measurement tolerance of the chromaticity coordinates is ±0.01.

Absolute Maximum Ratings at TA=25°C

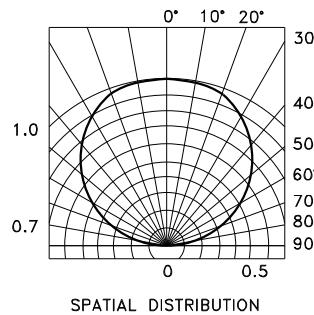
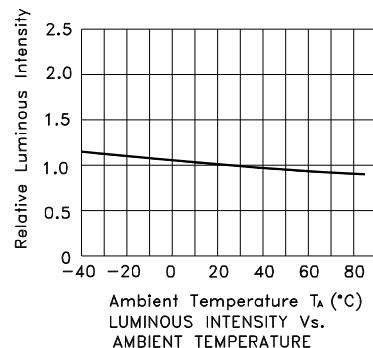
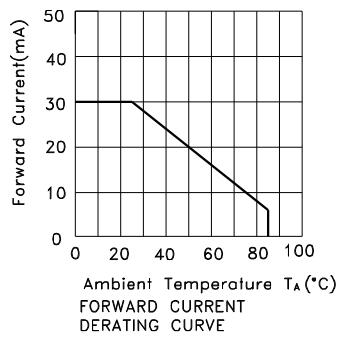
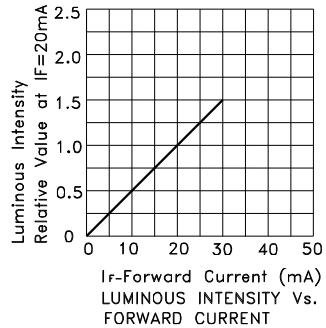
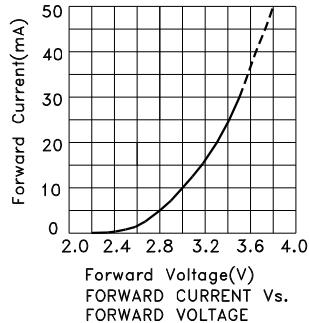
Parameter	PURPLE	Units
Power dissipation	120	mW
DC Forward Current	30	mA
Peak Forward Current [1]	150	mA
Reverse Voltage	5	V
Operating Temperature	-40°C To +85°C	
Storage Temperature	-40°C To +85°C	

Note:

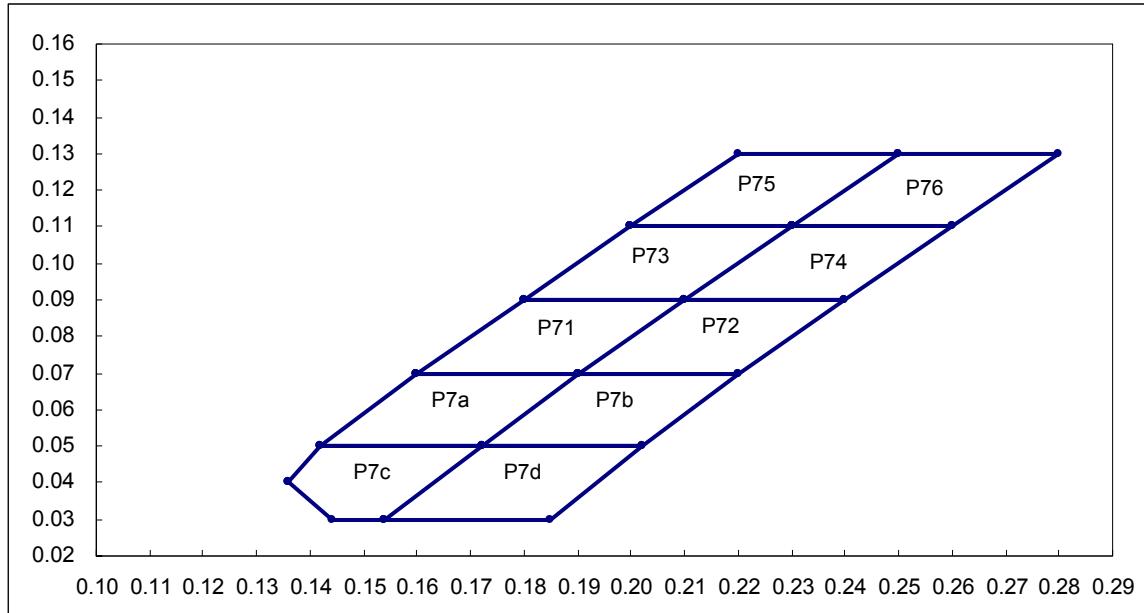
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

PURPLE

AA3528QR7C/D



AA3528QR7C/D



P7c				
X	0.136	0.144	0.154	0.172
Y	0.040	0.030	0.030	0.050
	0.142			

P7d				
X	0.154	0.185	0.202	0.172
Y	0.030	0.030	0.050	0.050
	0.050			

P7a				
X	0.142	0.172	0.190	0.160
Y	0.050	0.050	0.070	0.070
	0.160			

P7b				
X	0.172	0.202	0.220	0.190
Y	0.050	0.050	0.070	0.070
	0.200			

P71				
X	0.160	0.190	0.210	0.180
Y	0.070	0.070	0.090	0.090
	0.180			

P72				
X	0.190	0.220	0.240	0.210
Y	0.070	0.070	0.090	0.090
	0.210			

P73				
X	0.180	0.210	0.230	0.200
Y	0.090	0.090	0.110	0.110
	0.200			

P74				
X	0.210	0.240	0.260	0.230
Y	0.090	0.090	0.110	0.110
	0.230			

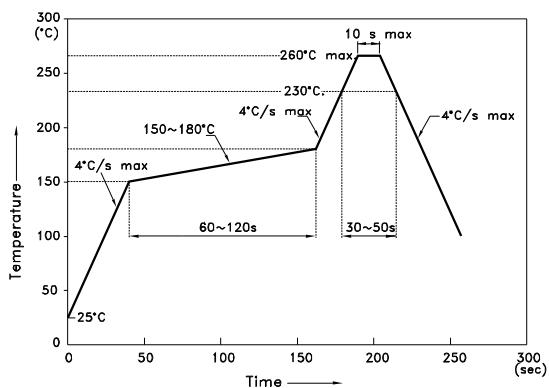
P75				
X	0.200	0.230	0.250	0.220
Y	0.110	0.110	0.130	0.130
	0.220			

P76				
X	0.230	0.260	0.280	0.250
Y	0.110	0.110	0.130	0.130
	0.250			

AA3528QR7C/D

Reflow soldering is recommended and the soldering profile is shown below.
Other soldering methods are not recommended as they might cause damage to the product.

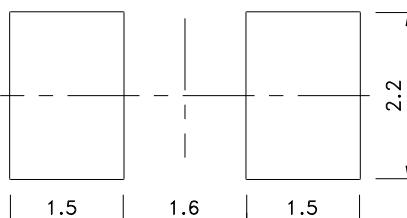
Reflow Soldering Profile For Lead-free SMT Process.



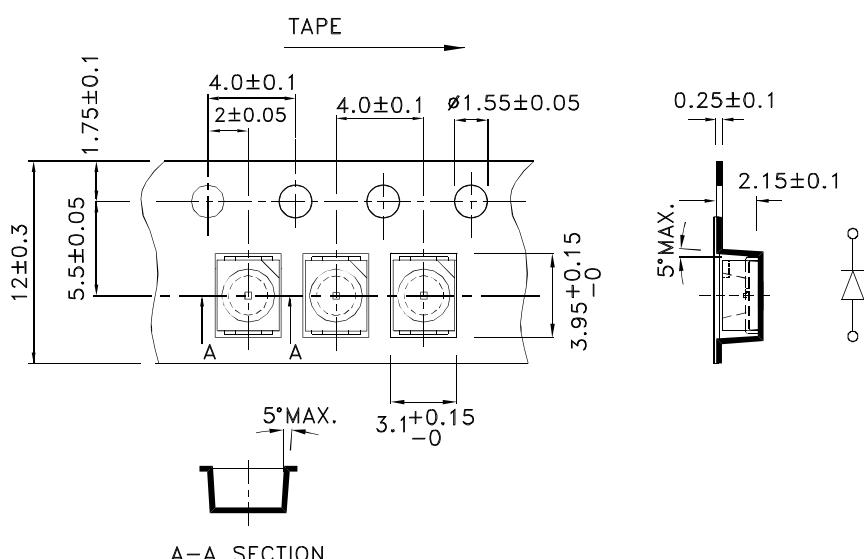
NOTES:

1. We recommend the reflow temperature $245^{\circ}\text{C} (+/- 5^{\circ}\text{C})$. The maximum soldering temperature should be limited to 260°C .
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Tape Dimensions (Units : mm)



A-A SECTION

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PACKING & LABEL SPECIFICATIONS

AA3528QR7C/D

