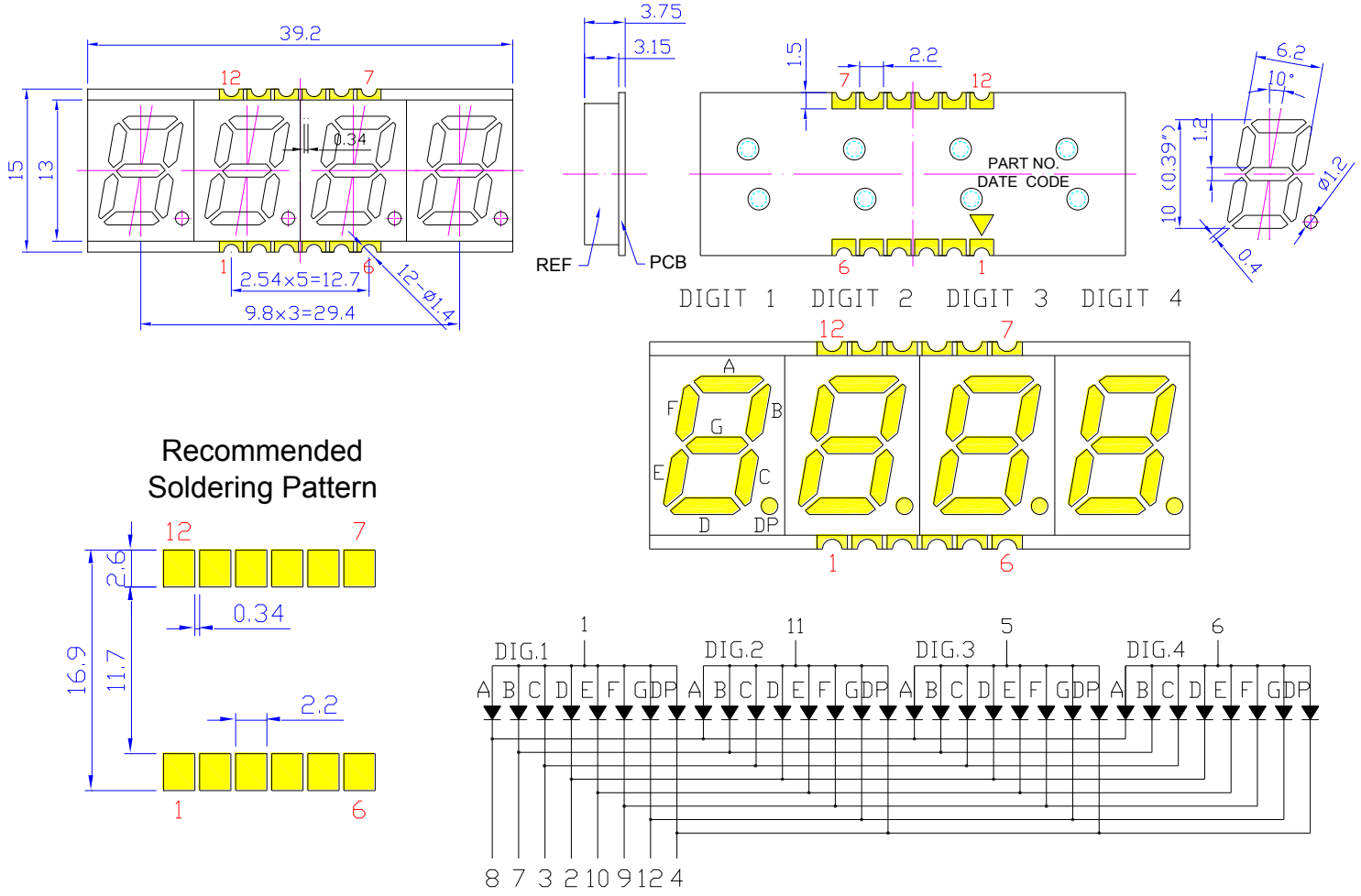



# SPECIFICATIONS SDQA39W2W

## MECHANICAL DIMENSIONS



- Notes:**
1. All dimensions are in millimeters (inches).
  2. Tolerance is  $\pm 0.25\text{mm}$  (0.01") unless otherwise noted.
  3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Description
SDQA39W2W	InGaN	White	White Segment	Common Anode



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**ABSOLUTE MAXIMUM RATINGS (TA=25°C)**

Parameter	Symbol		Unit
Power Dissipation per Dice	PAD	78	mW
Derating Liner from 25°C per Dice	-	0.3	mA / °C
Continuous Forward Current per Dice	IAF	20	mA
Peak Current per Dice (duty cycle 1/10, 1kHz)	IPF	60	mA
Reverse Voltage per Dice	VR	5	°C
Operating Temperature	TOPR	-40~+85	°C
Storage Temperature	TSTG	-40~+105	°C

**OPTICAL-ELECTRICAL CHARACTERISTICS (TA=25°C)**

Characteristic	Symbol	Condition	Value			Unit
			Min.	Type.	Max.	
Forward Voltage per Dice	VF	IF =5mA	-	3.0	4.0	V
Reverse Current per Dice	IR	VR = 8V	-	-	10	µA
Chromaticity Coordinate	X	IF =5mA	-	0.29	-	nm
	Y	IF =5mA	-	0.28	-	nm
Luminous Intensity	IV	IF =5mA	-	85	-	mcd
Spectral Radiation Bandwidth per Dice	Δλ	IF =5mA	-	30	-	nm

\*Tolerance of viewing angle: -10 / +5 deg.



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## OPTICAL CHARACTERISTIC CURVES

(25 °C Free Air Temperature Unless Otherwise Specified)

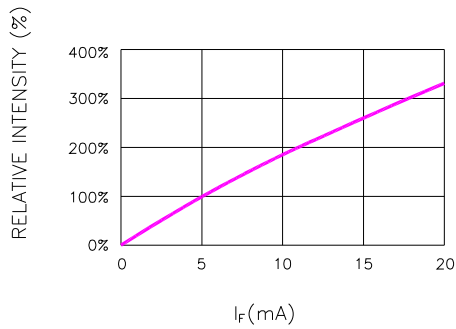


Fig.1 RELATIVE INTENSITY VS. FORWARD CURRENT

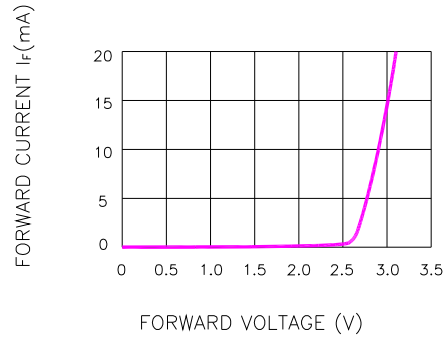


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

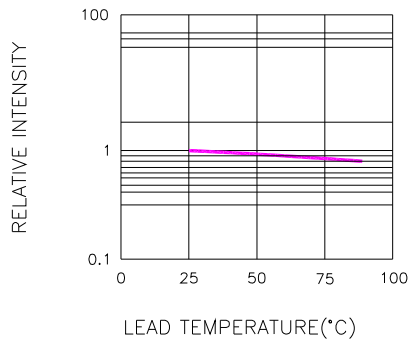


Fig.3 RELATIVE INTENSITY VS. LEAD TEMPERATURE

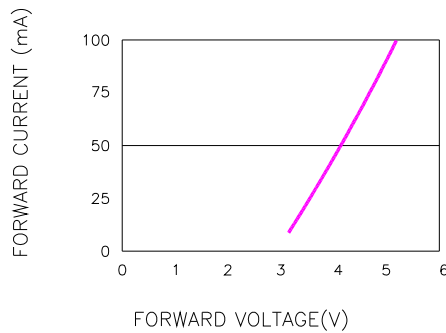


Fig.4 PEAK FORWARD VOLTAGE VS. FORWARD (100us TEST PULSE, 1% DUTY CYCLE)

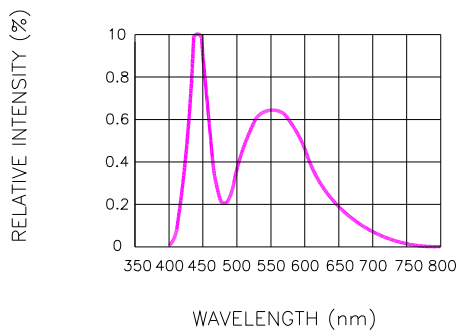


Fig.4 RELATIVE INTENSITY VS. WAVELENGTH

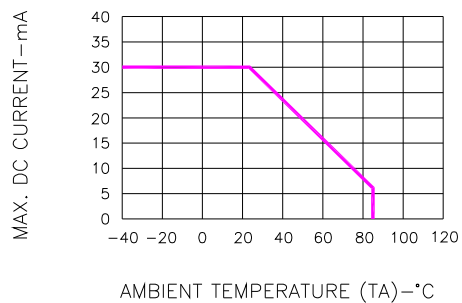


Fig.7 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE

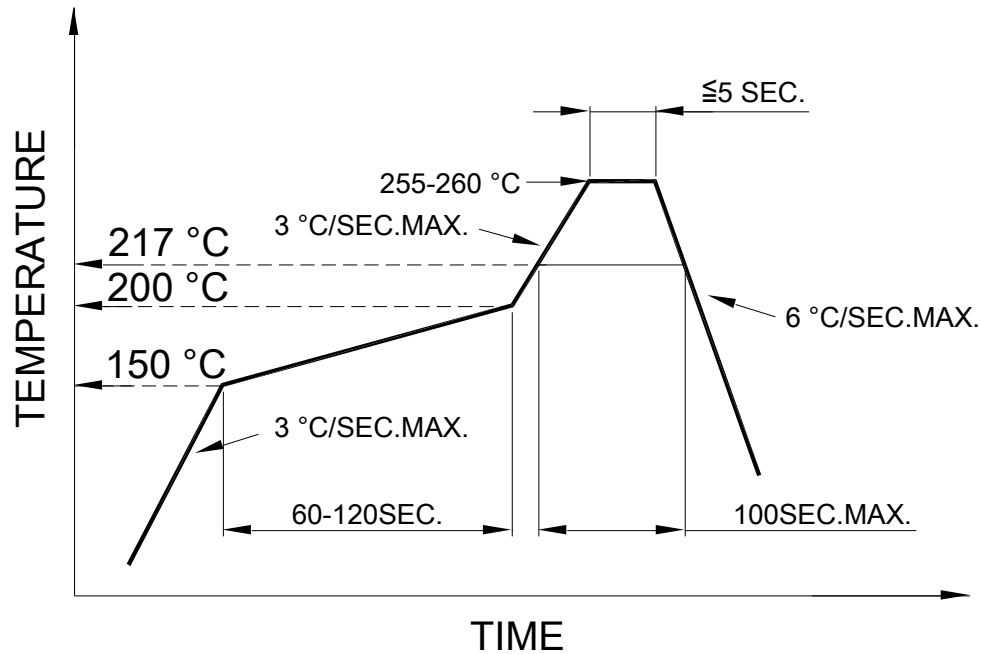


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**SOLDERING CONDITIONS – SMD TYPE LED**
**● RECOMMEND SOLDERING PROFILE**

SMT Soldering Profile

Pb free reflow soldering Profile


**● SOLDERING IRON**

Basic specification :  $\leq 4$  seconds when 260°C, If temperature is higher, time should be shorter (+10°C → 1 sec). Power dissipation of iron should be smaller than 15W, and temperature should be controllable. Surface temperature of the device should be under 230°C.

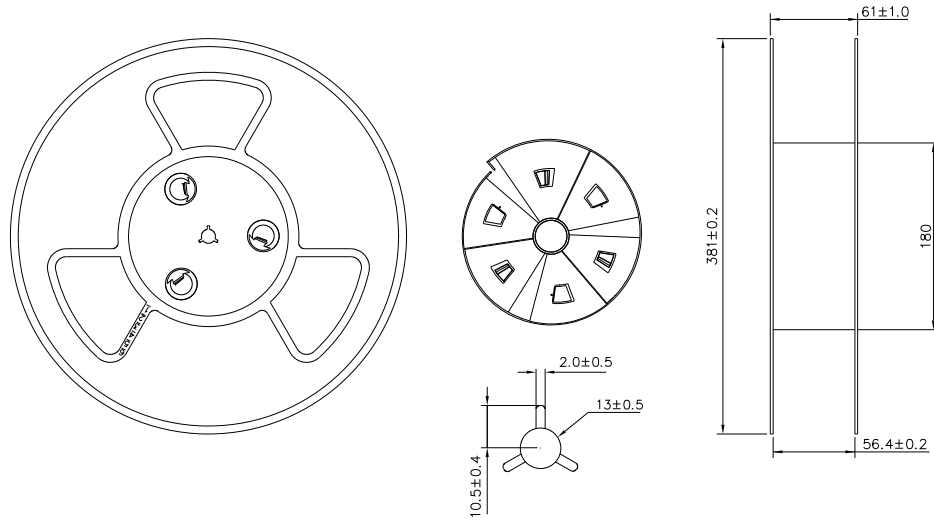
**● REWORK**

Customer must finish rework within  $\leq 3$  sec under 350°C.

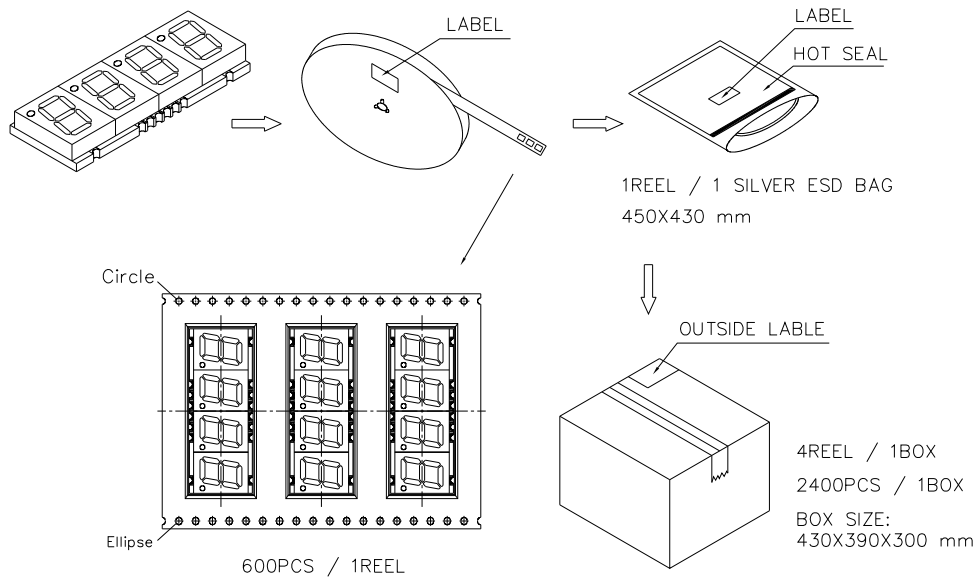


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## DIMENSIONS OF TAPE (Unit: mm)



## PACKAGING SPECIFICATION



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