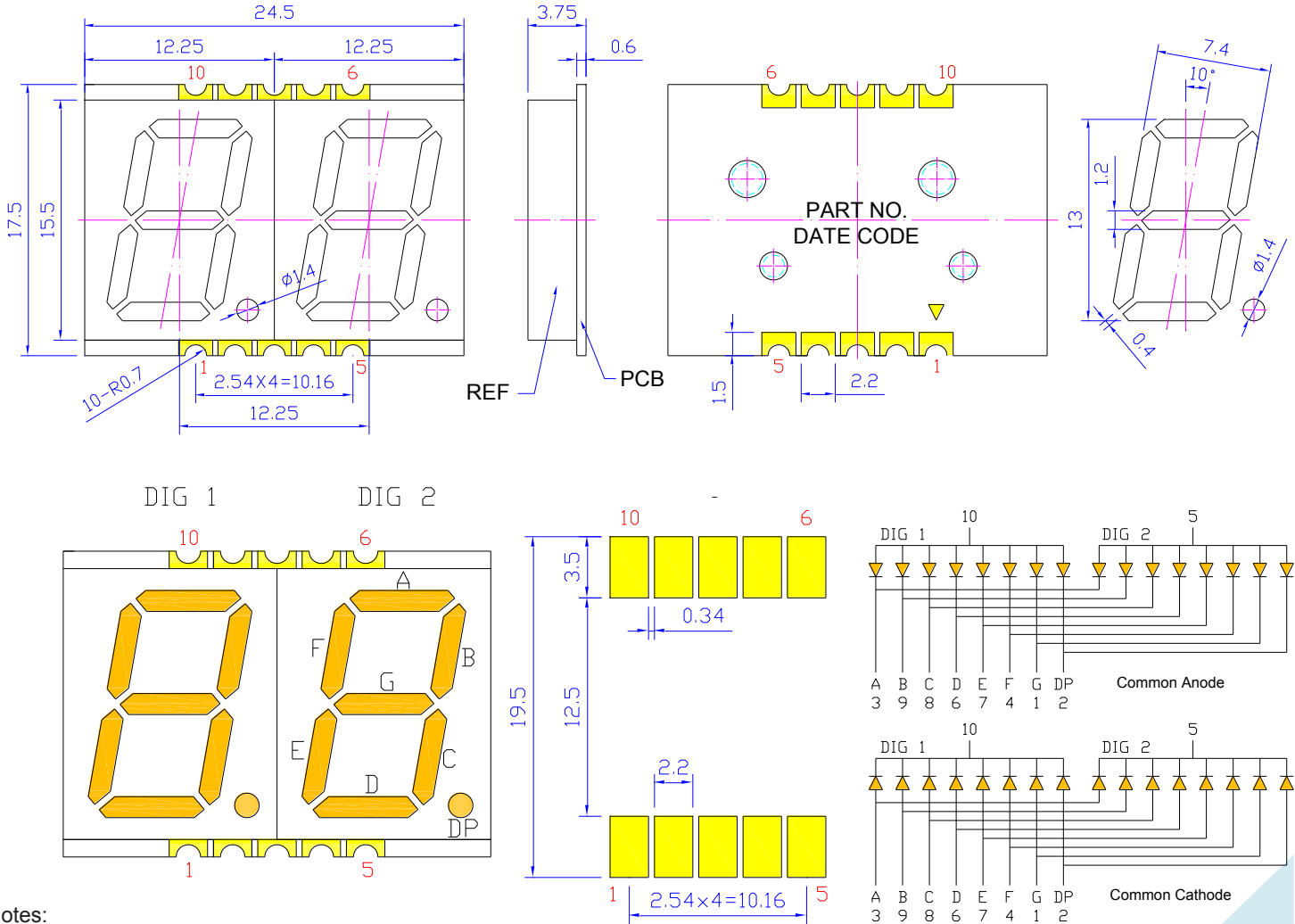


SPECIFICATIONS
SDDA51B2W
MECHANICAL DIMENSIONS


- 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
SDDA51B2W	InGaN	Blue	White Segment	Common Anode



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ABSOLUTE MAXIMUM RATINGS
(TA=25°C)

Parameter	Symbol	Value	Unit
Power Dissipation per Dice	P _{AD}	120	mW
Derating Liner from 25°C per Dice	-	0.3	mA / °C
Continuous Forward Current per Dice	I _{AF}	30	mA
Peak Current per Dice (duty cycle 1/10, 1kHz)	I _{PF}	100	mA
Reverse Voltage per Dice	V _R	5	V
Operating Temperature	T _{OPR}	-40~+105	°C
Storage Temperature	T _{STG}	-40~+105	°C

OPTICAL-ELECTRICAL CHARACTERISTICS
(TA=25°C)

Characteristic	Symbol	Condition	Value			Unit
			Min.	Type.	Max.	
Forward Voltage per Dice	V _F	I _F = 5mA	-	2.85	3.0	V
Reverse Current per Dice	I _R	V _R = 8V	-	-	10	μA
Peak Wavelength per Dice	λ _P	I _F = 5mA	-	472	-	nm
Dominant Wavelength per Dice	λ _D	I _F = 5mA	450	470	480	nm
Luminous Intensity per Dice	I _V	I _F = 5mA	10	30	-	mcd
Spectral Radiation Bandwidth per Dice	Δλ	I _F = 5mA	-	30	-	nm

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


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OPTICAL CHARACTERISTIC CURVES

Typical Electro-optical Characteristic Curves (25 °C Free Air Temperature Unless Otherwise Specified)

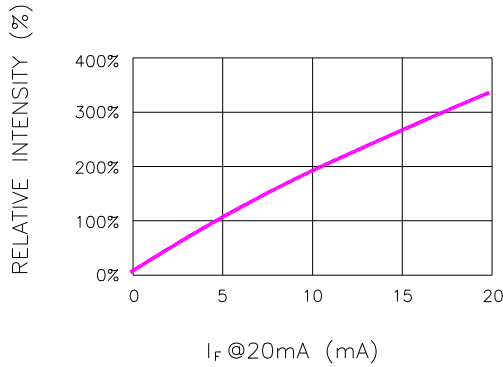


Fig.1 RELATIVE INTENSITY VS. FORWARD CURRENT

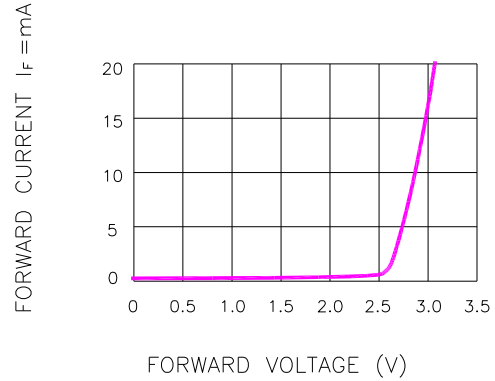


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

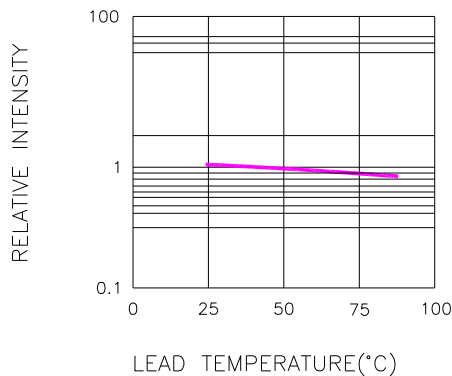


Fig.3 RELATIVE INTENSITY VS. LEAD TEMPERATURE
(PULSED 20 mA; 300us PULSE, 10ms PERIOD)

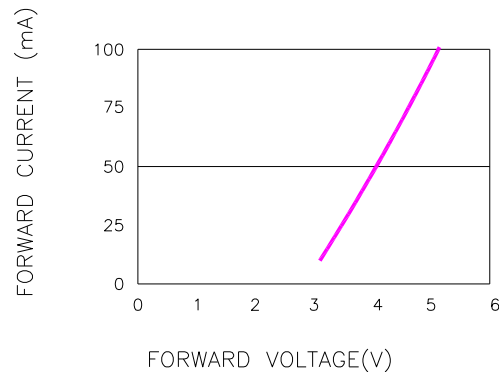


Fig.4 PEAK FORWARD VOLTAGE VS. FORWARD CURRENT
(100us TEST PULSE, 1% DUTY CYCLE)

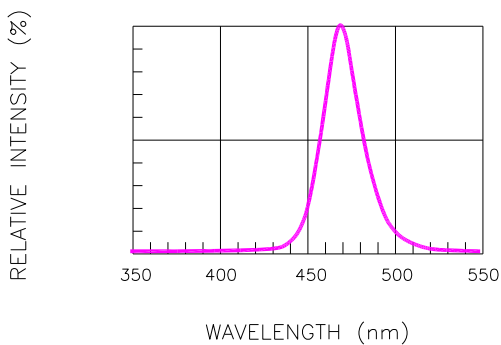


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

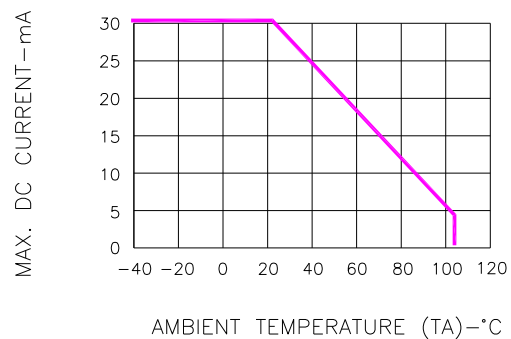


Fig.6 MAX. ALLOWABLE DC CURRENT



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SOLDERING CONDITIONS – LAMP TYPE LED

● **SMT REFLOW SOLDERING INSTRUCTIONS**

SMT Soldering Profile
 Pb free reflow soldering Profile



● **SOLDERING IRON**

Basic spec is ≤ 4 sec 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 5 sec. under 260°C.
- The head of soldering iron cannot touch copper foil.

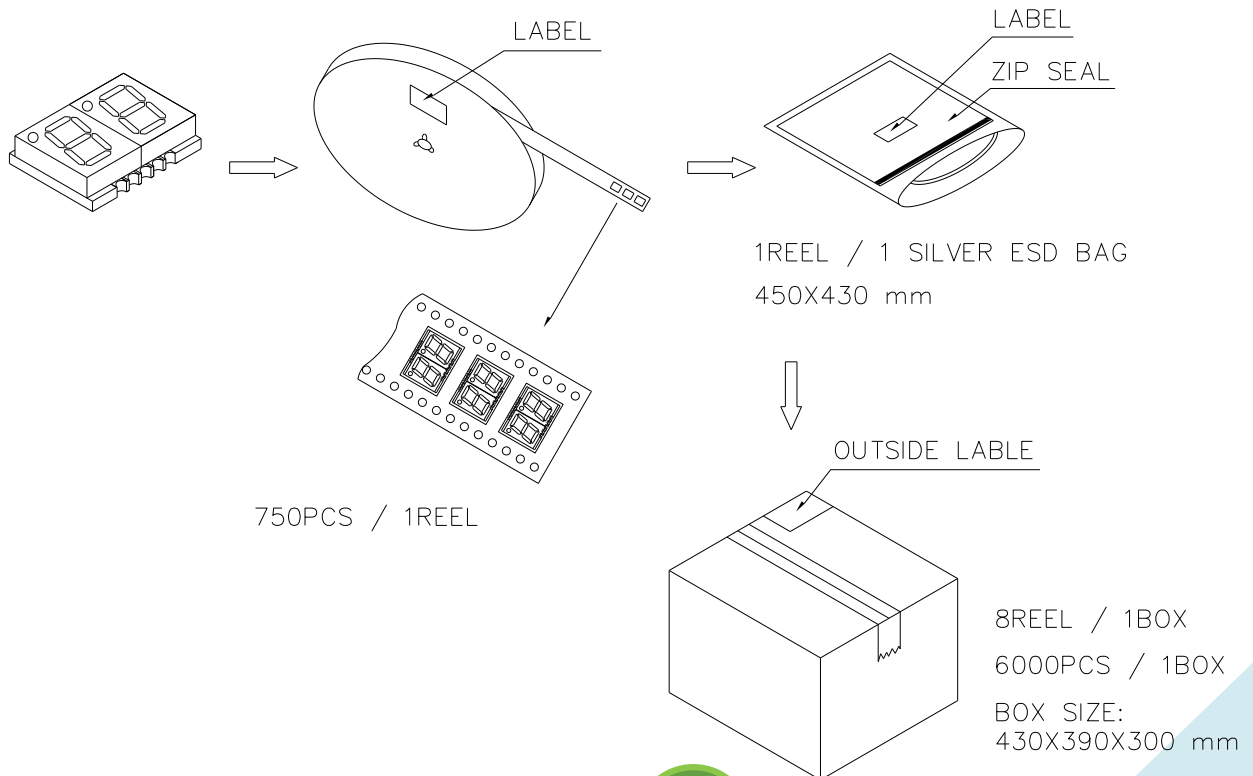


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DIMENSIONS OF TAPE (Unit: mm)



PACKAGING SPECIFICATION



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