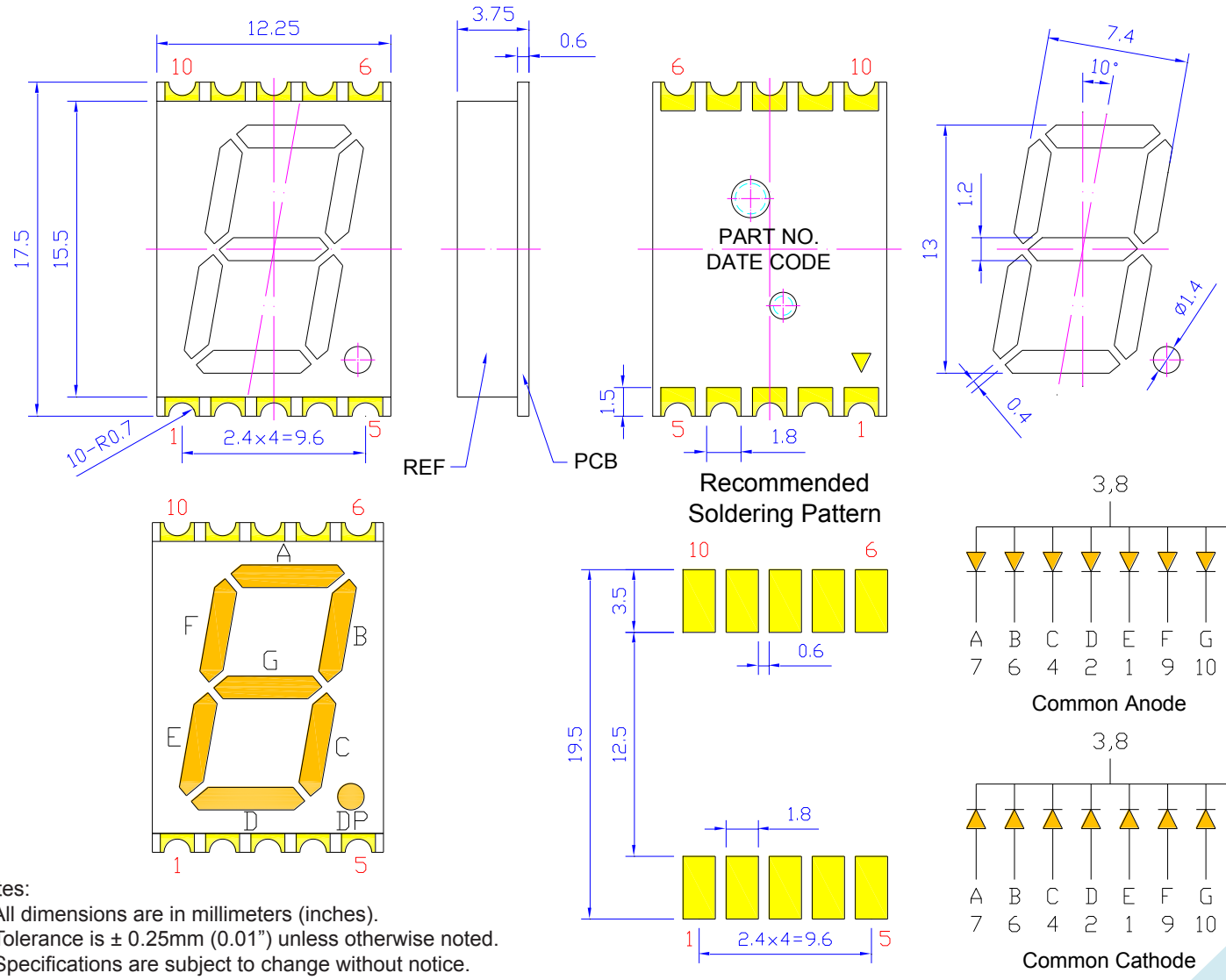
SPECIFICATIONS SDSA51B2W

MECHANICAL DIMENSIONS



Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25mm (0.01”) unless otherwise noted.
3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Description
SDSA51B2W	InGaN	Blue	White Segment	Common Anode

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	$\Delta\lambda$	I_F = 5mA	-	30	-	nm

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

RoHS Compliant Lead Free

OPTICAL CHARACTERISTIC CURVES

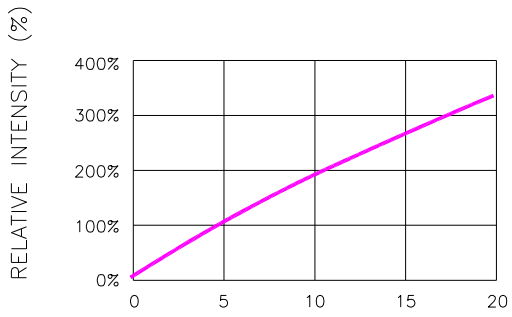


Fig.1 RELATIVE INTENSITY VS. FORWARD CURRENT

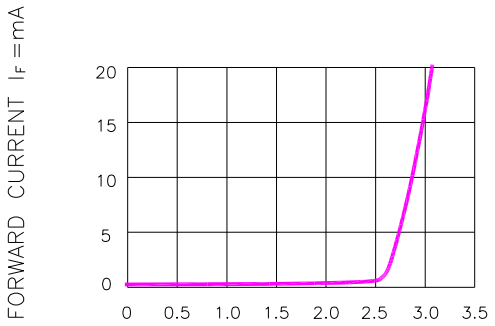


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

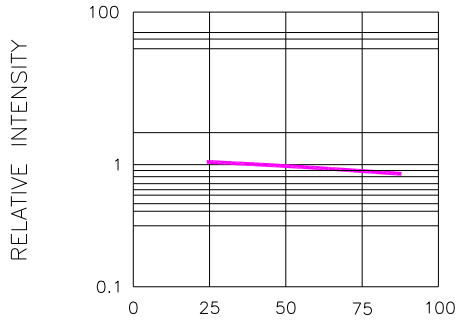


Fig.3 RELATIVE INTENSITY VS.LEAD TEMPERATURE (PULSED 20 mA; 300us PULSE,10ms PERIOD)

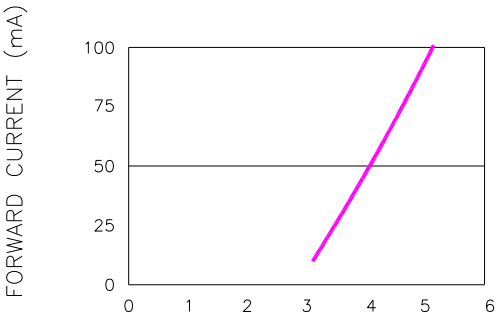


Fig.4 PEAK FORWARD VOLTAGE VS.FORWARD(100us TEST PULSE, 1% DUTY CYCLE)

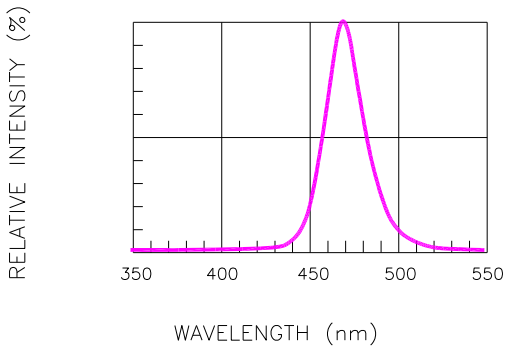


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

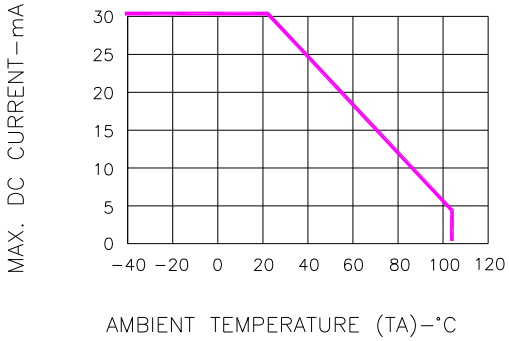


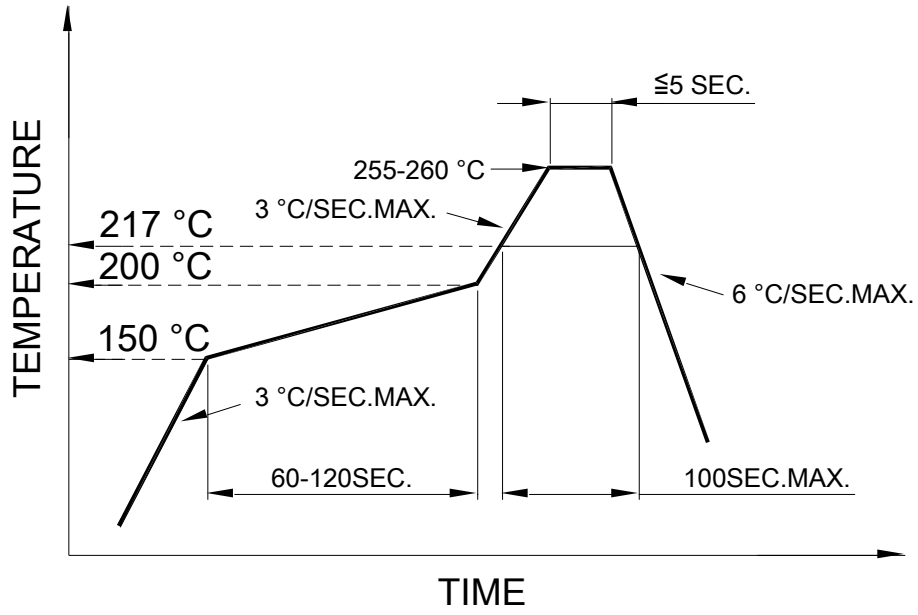
Fig.6 MAX. ALLOWABLE DC CURRENT

SOLDERING CONDITIONS – LAMP TYPE LED

SMT REFLOW SOLDERING INSTRUCTIONS

SMT Soldering Profile

Pb free reflow soldering Profile



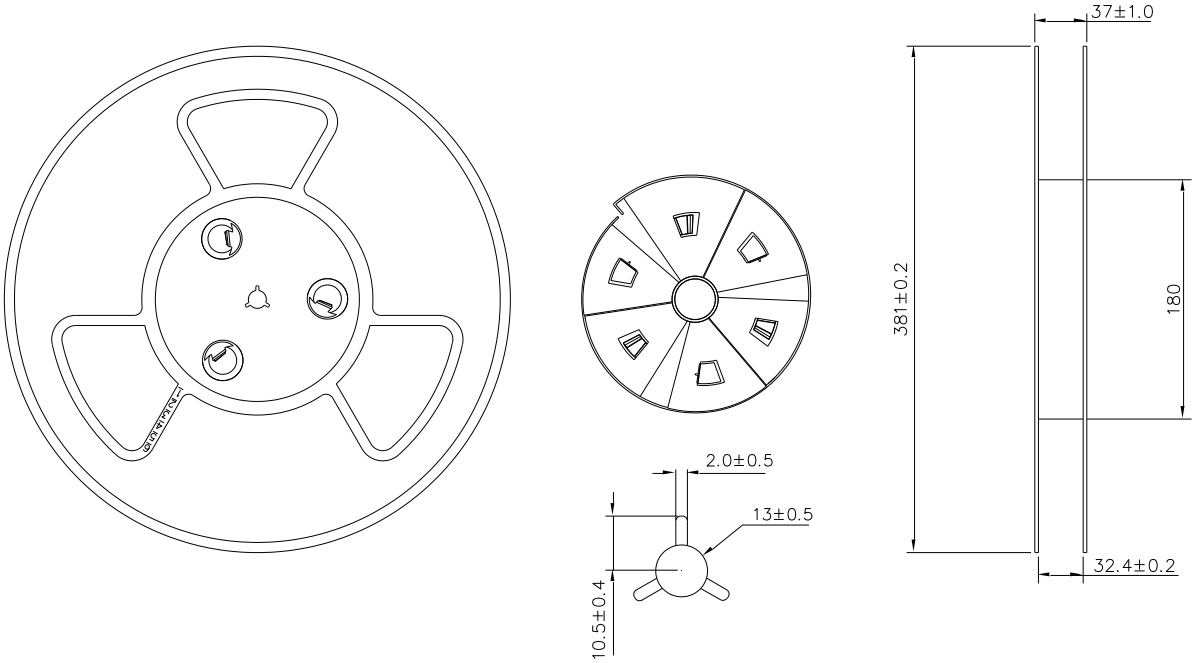
SOLDERING IRON

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.

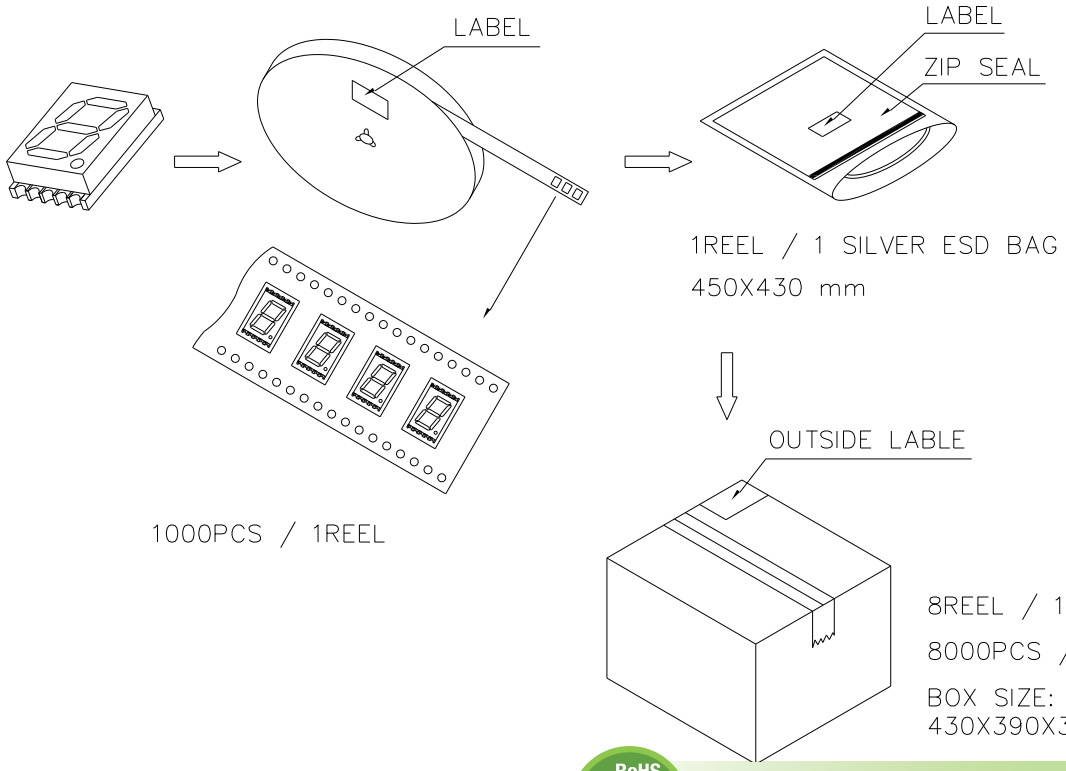
REWORK

- Customer must finish rework within 5 sec. under 260°C.
- The head of soldering iron cannot touch copper foil.

DIMENSIONS OF TAPE (Unit: mm)



PACKAGING SPECIFICATION



RoHS Compliant
Lead Free

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