



582 SERIES

IR EMC SMD LED With Domed Lens

3838 Package

MECHANICAL / SPECIFICATIONS

PART NUMBER:
[582-E26A8-103HPF](#)

DIMENSIONS:
3.80×3.80×2.28mm

LENS COLOR: Water Clear

STANDARD PACKAGING: 3000 pcs / reel

MOISTURE SENSITIVITY LEVEL: 3

VIEWING ANGLE: 80°

CERTIFICATIONS & RATINGS

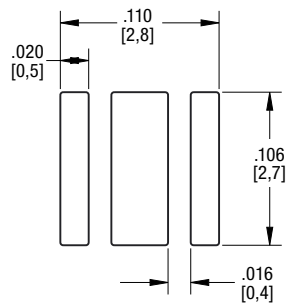
RoHS Compliant

FEATURES & BENEFITS

- This product is designed with EMC packaging technology for high performance, heat resistance, and thermal conductivity at high drive currents.
- Dual Junction, Peak Wavelength 850nm / IF=1000mA

DIMENSIONS inches [mm]

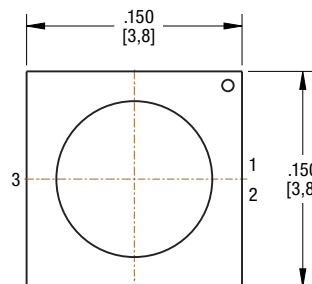
RECOMMENDED PAD LAYOUT



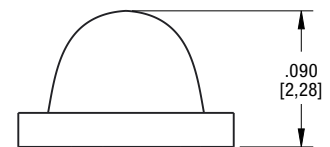
LED SCHEMATIC



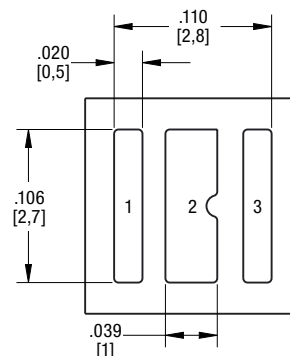
TOP VIEW



SIDE VIEW



BOTTOM VIEW



1. All dimensions are in millimeters.
2. Tolerance is ± 0.2 mm unless otherwise noted.

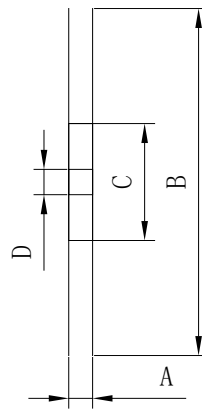
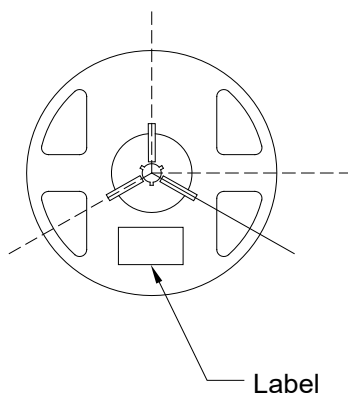
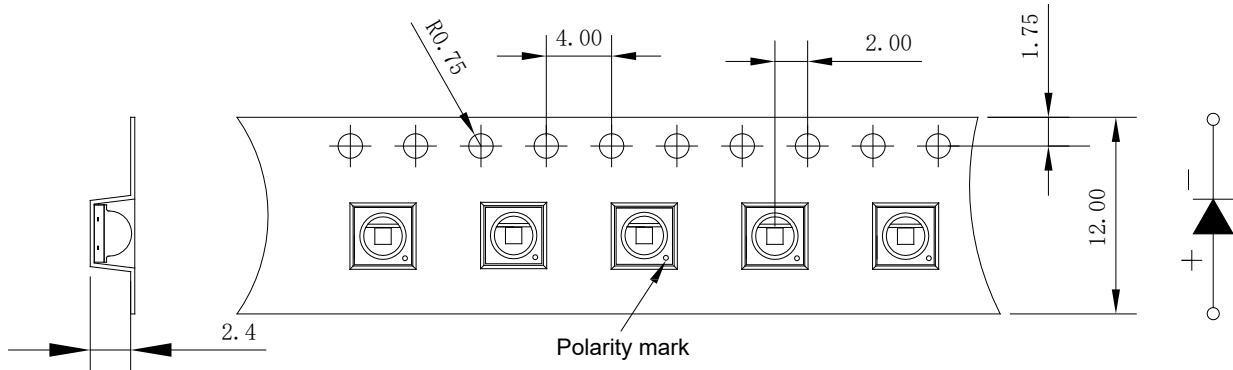
ABSOLUTE MAXIMUM RATINGS @ $T_s=25^{\circ}\text{C}$

Parameter	Symbol	Rating	Unit
Power Dissipation	P_D	5	W
Forward Current	I_F	1500	mA
Reverse Voltage	V_R	5	V
Electrostatic Discharge	E_{SD}	2000	V
Operating Temperature	T_{OPR}	-40 ~ +105	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-40 ~ +105	$^{\circ}\text{C}$
Junction Temperature	T_J	150	$^{\circ}\text{C}$

ELECTRICAL / OPTICAL CHARACTERISTICS @ $T_s=25^{\circ}\text{C}$

Item	Symbol	Test Condition	Values			Unit
			Min.	Typ.	Max.	
Reverse Current	I_R	$V_R=V5$			10	μA
Forward Voltage	V_F	$I_F=1000\text{mA}$	2.8	3.1		V
Peak Wavelength	λ_p	$I_F=1000\text{mA}$		850		nm
Spectrum Radiation Bandwidth	$\Delta\lambda$	$I_F=1000\text{mA}$		35		nm
Total Radiant Flux	ϕ_e	$I_F=1000\text{mA}$	1120	1400		mW
Viewing Angle	2 θ 1/2	$I_F=1000\text{mA}$		80		deg
Thermal Resistance	R_{THJ-S}	$I_F=1000\text{mA}$		7		$^{\circ}\text{C/W}$

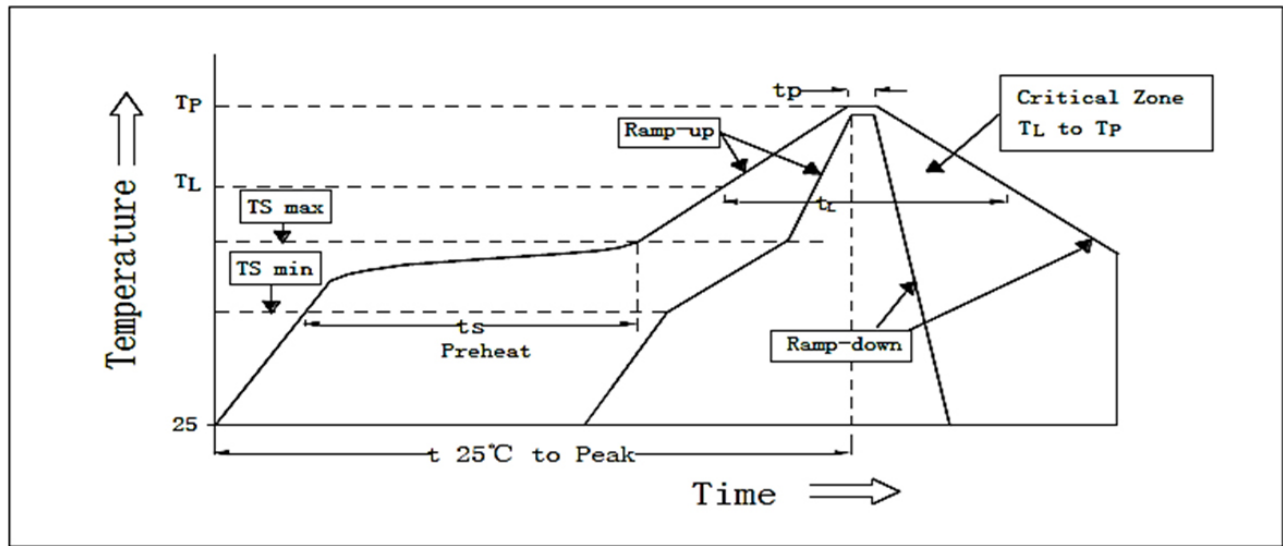
TAPE AND REEL SPECIFICATION



Reel Dimension

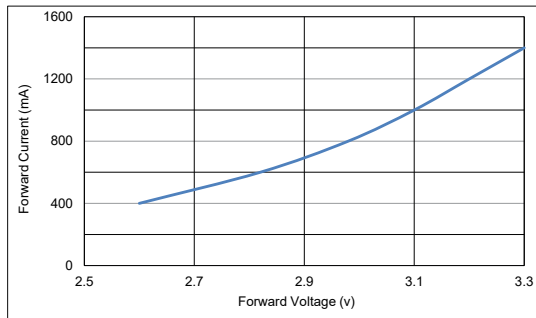
A	12.7±0.3mm
B	330.2±2mm
C	79.5±1mm
D	14.3±0.2mm

REFLOW SOLDERING PROFILE

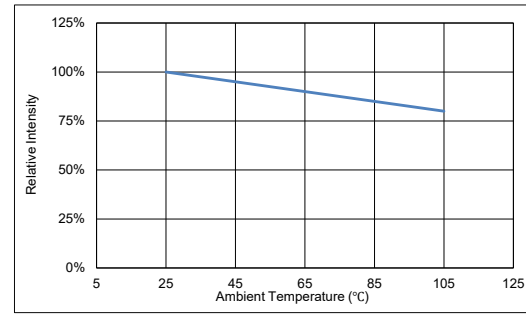


Average temperature rise speed (T _{smax} T _p)	Max 3°C/ s
Preheating: minimum temperature (T _{smin})	150°C
Preheating: Max temperature (T _{smax})	200°C
Preheating: Time (T _{smin} T _{smax})	60s-120s
Time limited to maintain high temperature: the temperature (T _L)	217 °C
Time limited to maintain high temperature: The Time (t _L)	60s-150s
Peak / Classification of temperature: (T _p)	260 °C
Time limit classification of peak temperature time (t _p)	Max 10s
Hold time within 5 °C with the actual peak temperature (TP)	Max 30s
Cooling speed	Max 6 °C/ s
Needed time from 25 °C to T _p	Max 8 minutes

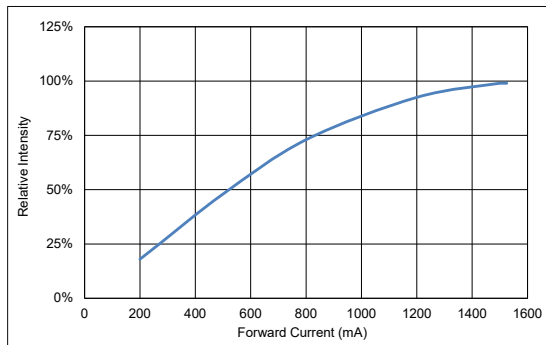
TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES



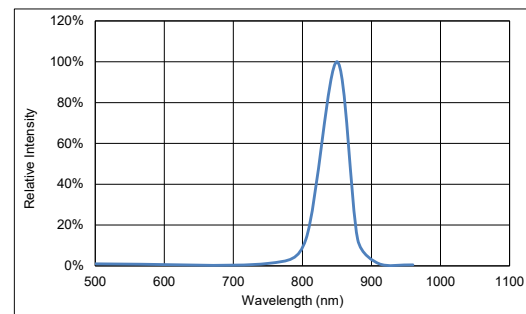
Forward Voltage vs. Forward Current



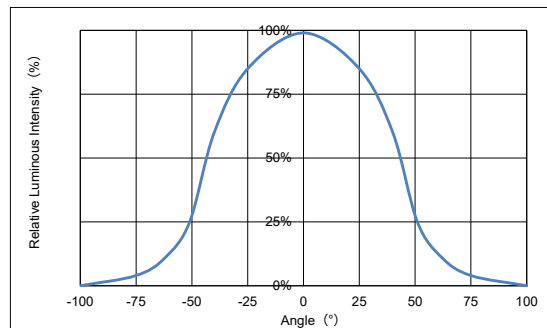
Ts Temperature vs Relative Intensity



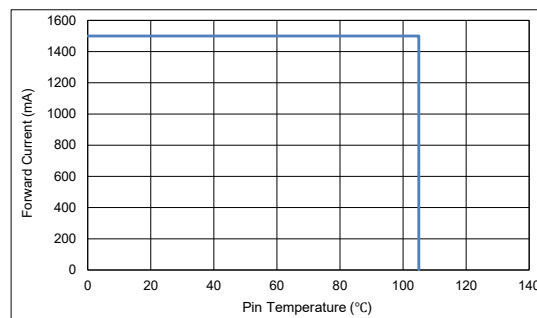
Forward Current vs. Relative Intensity



Spectrum Distribution



Radiation Diagram



Ts Temperature Vs Forward Current



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