



582 SERIES

**Ceramic IR SMD LED
With Domed Lens**

3535 Package

MECHANICAL / SPECIFICATIONS

PART NUMBER:
[582-A24A5-137HPF](#)

DIMENSIONS:
3.50 x 3.50 x 3.33mm

LENS COLOR: Water Clear

STANDARD PACKAGING: 500 pcs / reel

MOISTURE SENSITIVITY LEVEL: 3

MATERIAL: AlGaAs

VIEWING ANGLE: 57°

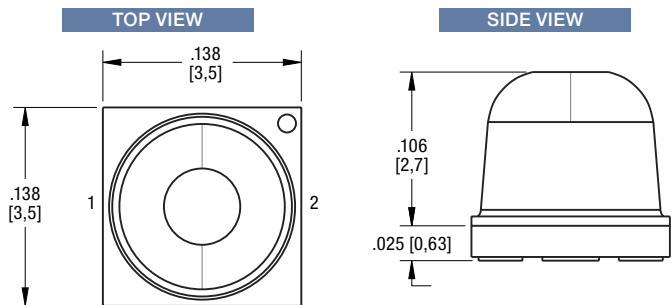
CERTIFICATIONS & RATINGS

RoHS Compliant

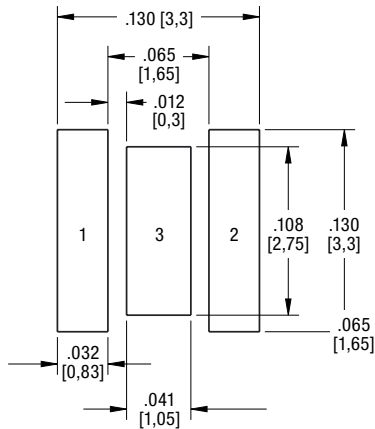
FEATURES & BENEFITS

- This product is designed with Ceramic Aluminum Nitride technology for high thermal conductivity to efficiently manage heat in high drive currents
- Dual Junction Chip, Peak Wavelength 850nm, 3.5W series / IF=1000mA

DIMENSIONS inches [mm]



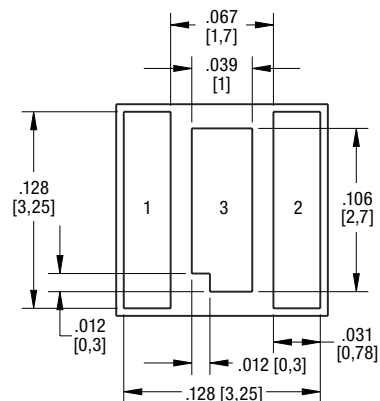
RECOMMENDED PAD LAYOUT



Pad 1 is Cathode
Pad 2 is Anode
Pad 3 is Non-polar

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

BOTTOM VIEW



ABSOLUTE MAXIMUM RATINGS @ TA=25°C

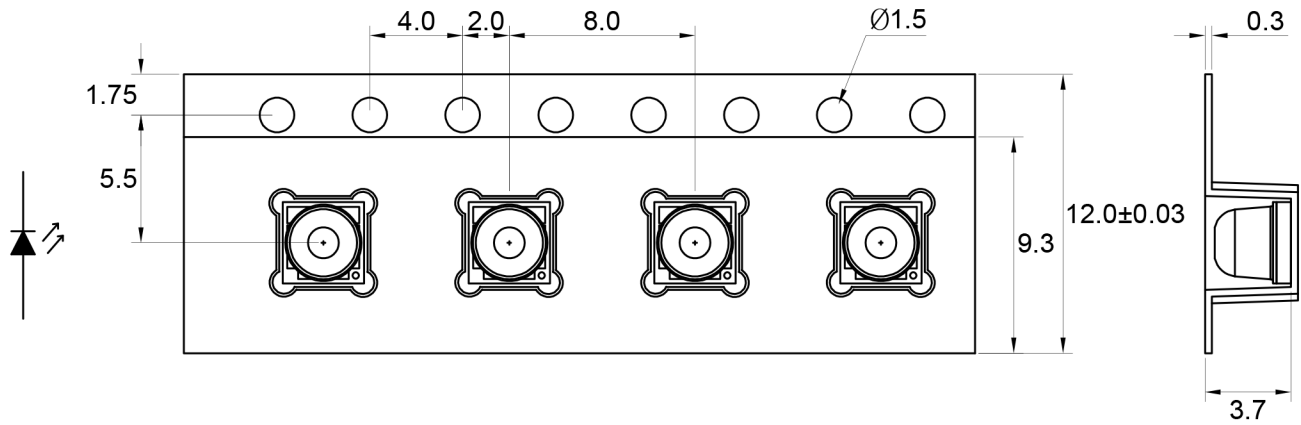
Parameter	Symbol	Maximum Rating	Unit
		Values	
Power Consumption	P_{tot}	3.7	W
DC Forward Current	I_F	1000	mA
Reverse Current (VR=5V)	I_r	10	uA
Peak Pulse Current (D≤1/10; f≤10KHz)	I_{FP}	2000	mA
ESD Sensitivity	HMB 100pf/1.5KΩ	2K	V
	MM 200pf/0Ω	150	V
LED Junction Temperature	T_j	145	°C
Thermal Resistance	$R_{th\ j-s}$	8	°C/W
Operating Temperature Range	T_{opr}	-40 to +125	°C
Storage Temperature Range	T_{stg}	-40 to +125	°C
Soldering Temperature	T_p	260	°C

ELECTRICAL / OPTICAL CHARACTERISTICS @ TA=25°C

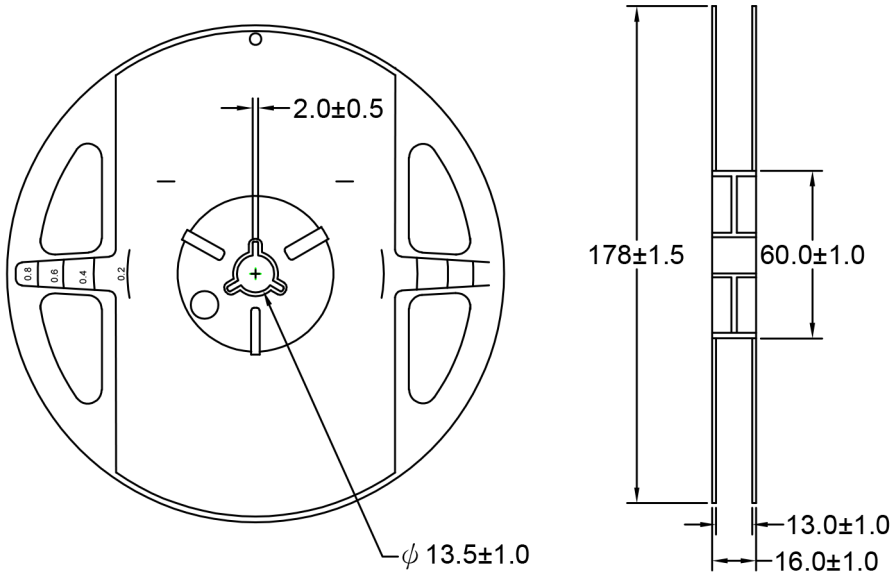
Parameter	Symbol	Values			Unit	Test Condition
		Min.	Typ.	Max.		
Radiant Intensity	I_e	520	700	1070	mW/sr	$I_F=1A$
Radiant Flux	Φ_e		1250		mW	$I_F=1A$
Peak Emission Wavelength	λ_p		850		nm	$I_F=1A$
Spectral Bandwidth at 50% I_{max}	$\Delta\lambda$		40		nm	$I_F=1A$
Forward Voltage	V_F	2.8		3.7	V	$I_F=1A$
Viewing Angle	$2\theta_{1/2}$		57		deg	$I_F=1A$

Note: 1.The forward voltage data did not including ±0.1V testing tolerance.
 2.The radiant Intensity data did not including ±15% testing tolerance.

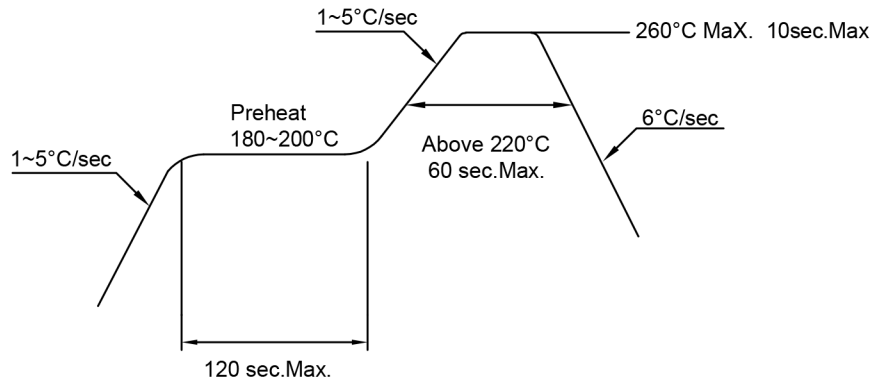
TAPE AND REEL SPECIFICATION



Note : The tolerances unless mentioned is $\pm 0.1\text{mm}$, Angle ± 0.5 . Unit=mm.



REFLOW SOLDERING PROFILE



Note: Reflow soldering should not be done more than two times.

TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES

Fig.1 Relative Intensity VS. Forward Current

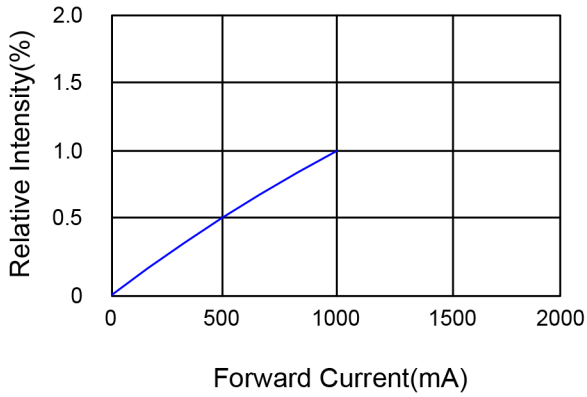


Fig.2 Forward Current VS. Ambient Temperature

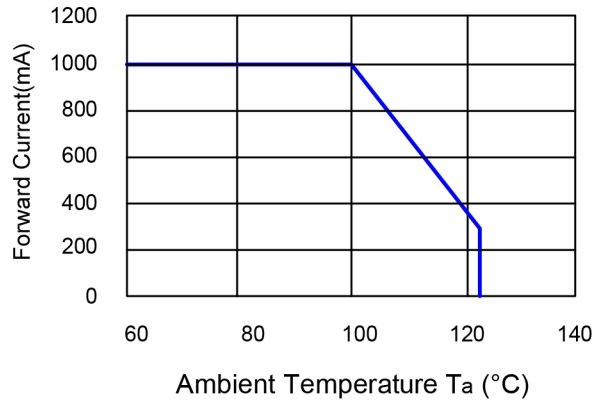


Fig.3 Relative Radiant Power VS. Wavelength

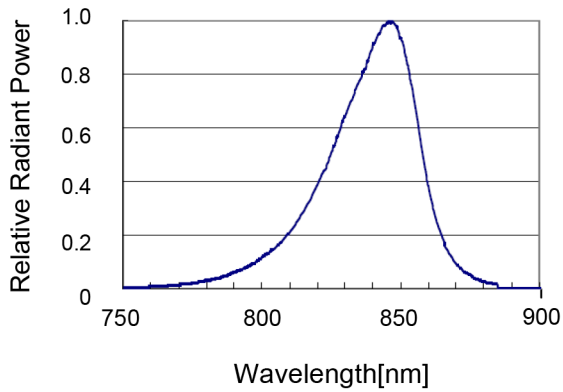


Fig.4 Forward Voltage VS. Forward Current

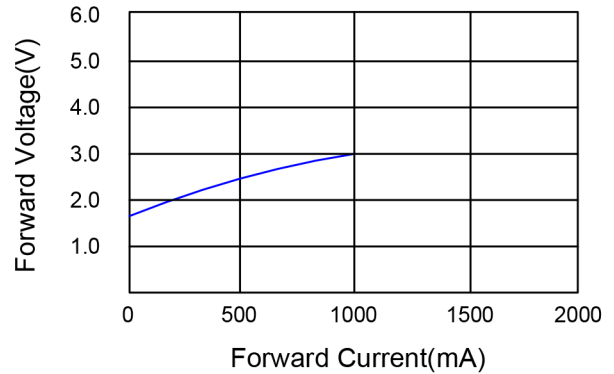
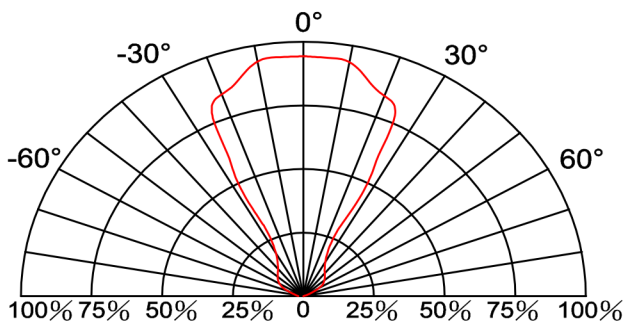


Fig.5 Directive Radiation



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