



582 SERIES

Ceramic IR SMD LED With Domed Lens

3535 Package

MECHANICAL / SPECIFICATIONS

PART NUMBER:
[582-C14A11-537HPE](#)

DIMENSIONS:
3.50 x 3.50 x 2.03mm

LENS COLOR: Water Clear

STANDARD PACKAGING: 500 pcs / reel

MOISTURE SENSITIVITY LEVEL: 3

MATERIAL: AlGaAs

VIEWING ANGLE: 120°

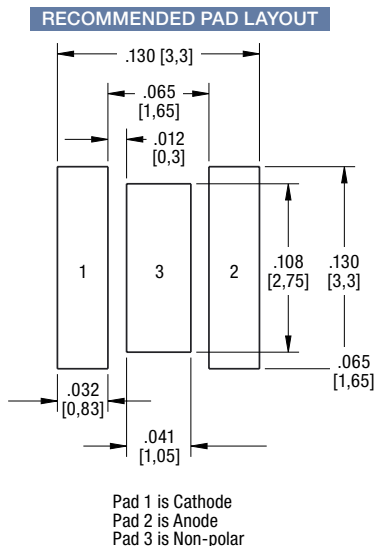
CERTIFICATIONS & RATINGS

RoHS Compliant

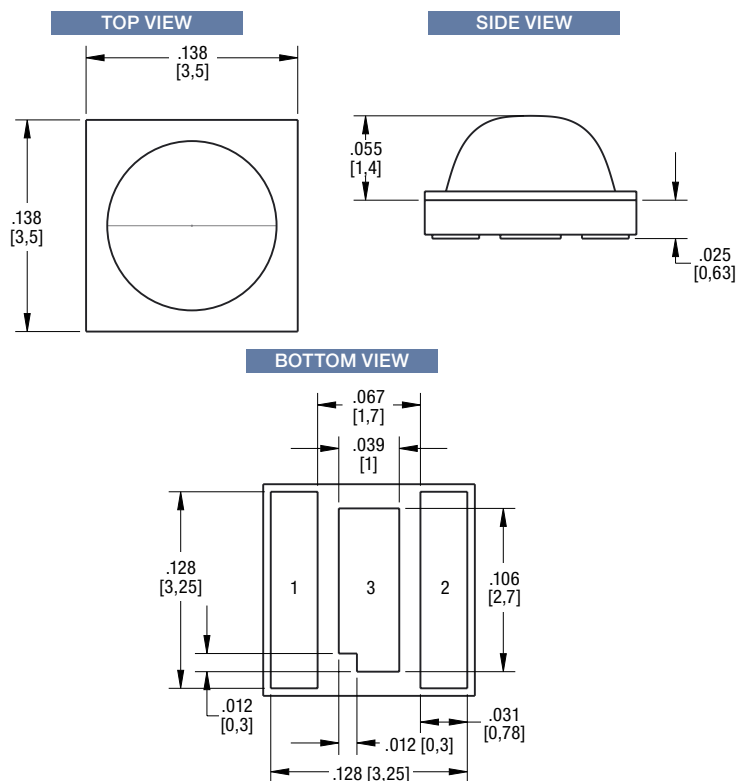
FEATURES & BENEFITS

- This product is designed with Ceramic packaging technology for high thermal conductivity to efficiently manage heat in high drive currents
- Single Junction Chip, Peak Wavelength 850nm, 1W series / IF=350mA

DIMENSIONS inches [mm]



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



ABSOLUTE MAXIMUM RATINGS @ TA=25°C

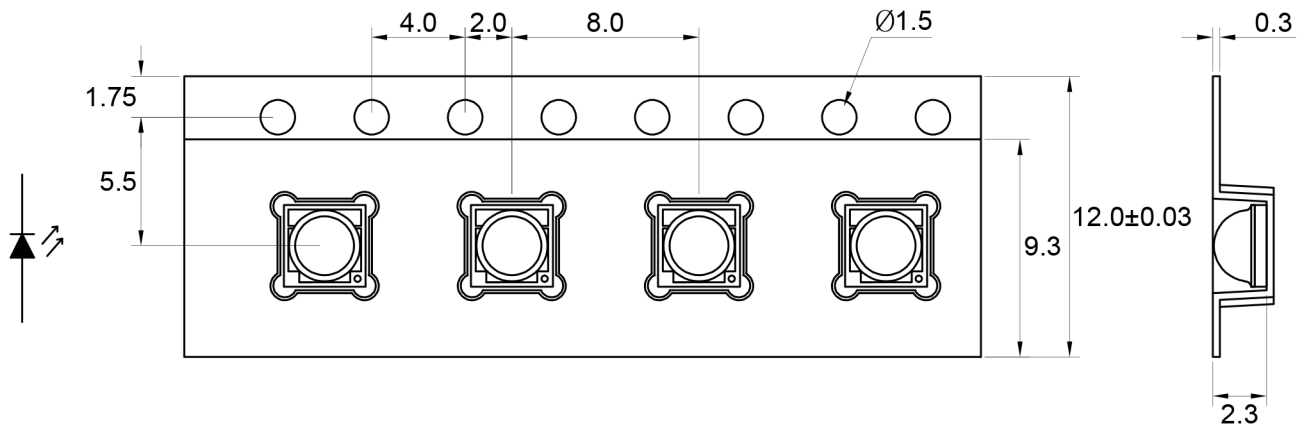
Parameter	Symbol	Maximum Rating	Unit
		Values	
Power Consumption	P_{tot}	1	W
DC Forward Current	I_F	500	mA
Reverse Current (VR=5V)	I_r	10	uA
Peak Pulse Current (D≤ 1/10; f≤10KHz)	I_{FP}	1000	mA
ESD Sensitivity	HMB 100pf/1.5KΩ	2K	V
	MM 200pf/0Ω	150	V
LED Junction Temperature	T_j	145	°C
Thermal Resistance	$R_{th\ j-s}$	8	°C/W
Operating Temperature	T_{opr}	-40 to +125	°C
Storage Temperature	T_{stg}	-40 to +125	°C
Soldering Temperature	T_p	260	°C

ELECTRICAL / OPTICAL CHARACTERISTICS @ TA=25°C

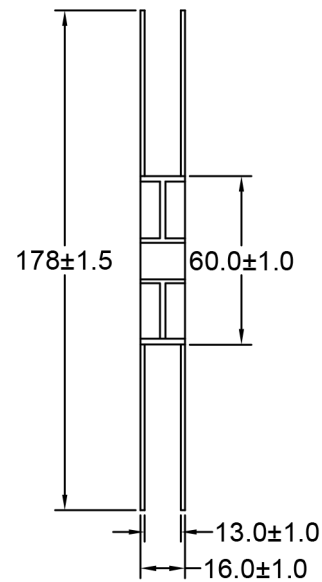
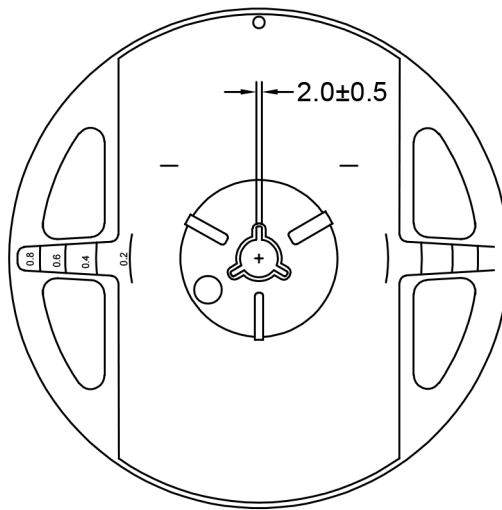
Parameter	Symbol	Values			Unit	Test Condition
		Min.	Typ.	Max.		
Radiant Intensity	I_e	70	105	140	mW/sr	$I_F=350mA$
			145			$I_F=500mA$
Radiant Flux	Φ_e		280		mW	$I_F=350mA$
			380			$I_F=500mA$
Peak Emission Wavelength	λ_p		850		nm	$I_F=350mA$
Spectral Bandwidth at 50% I_{max}	$\Delta\lambda$		40		nm	$I_F=350mA$
Forward Voltage	V_F	1.4		2.0	V	$I_F=350mA$
			1.8			$I_F=500mA$
Viewing Angle	2θ1/2		120		deg	$I_F=350mA$

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

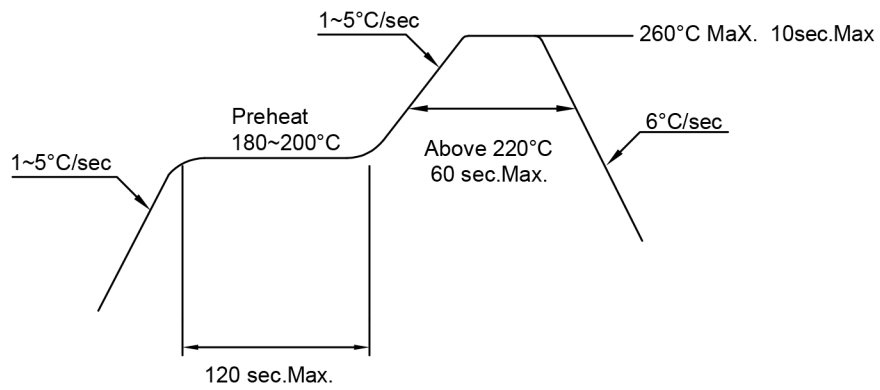
TAPE AND REEL SPECIFICATION



Note : The tolerances unless mentioned is $\pm 0.1\text{mm}$, Angle $\pm 0.5^\circ$. 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

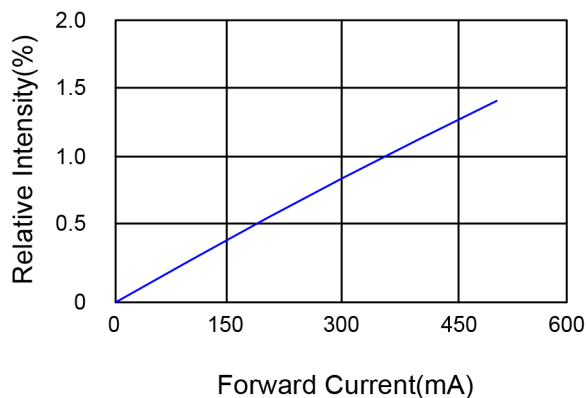


Fig.2 Forward Current
VS. Ambient Temperature

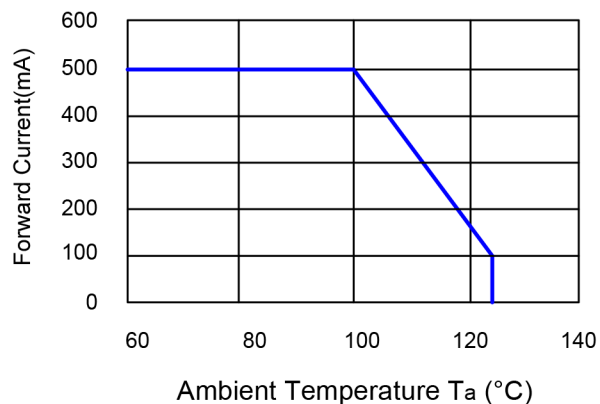


Fig.3 Relative Radiant Power
VS. Wavelength

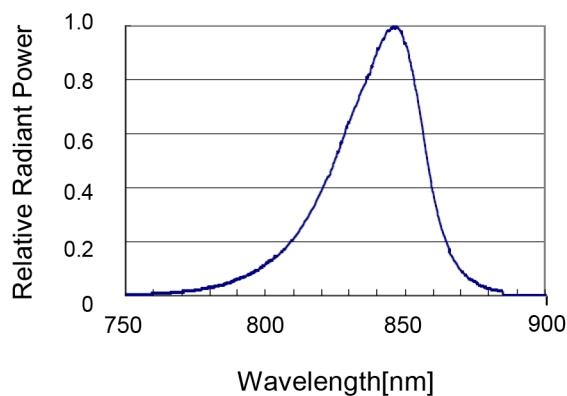


Fig.4 Forward Voltage
VS. Forward Current

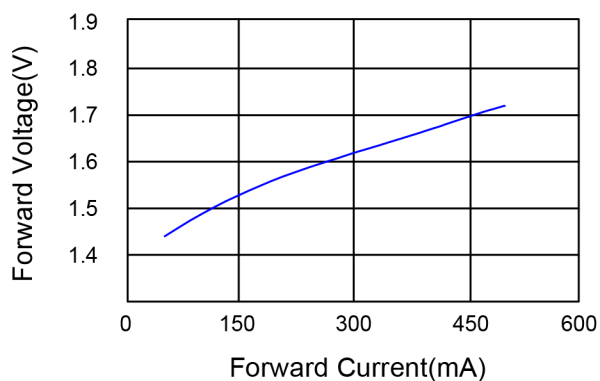


Fig.5 Directive Radiation

