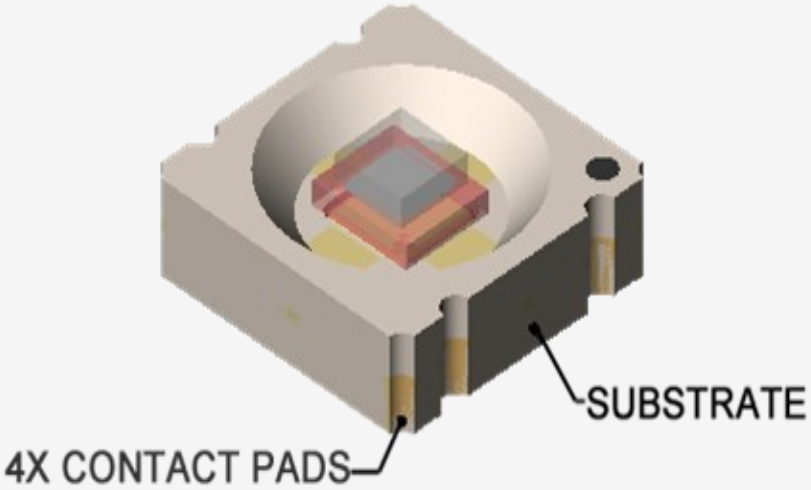
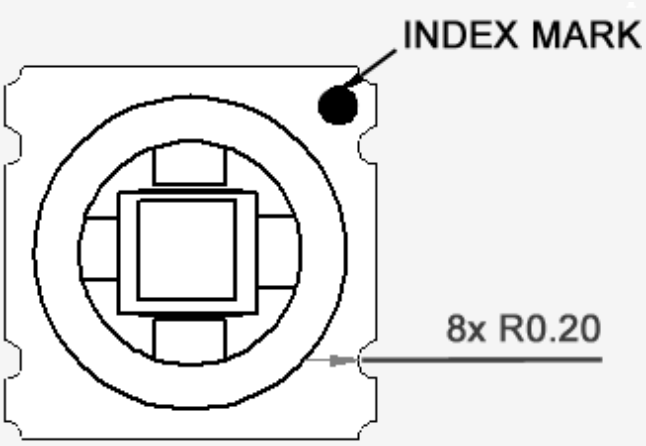
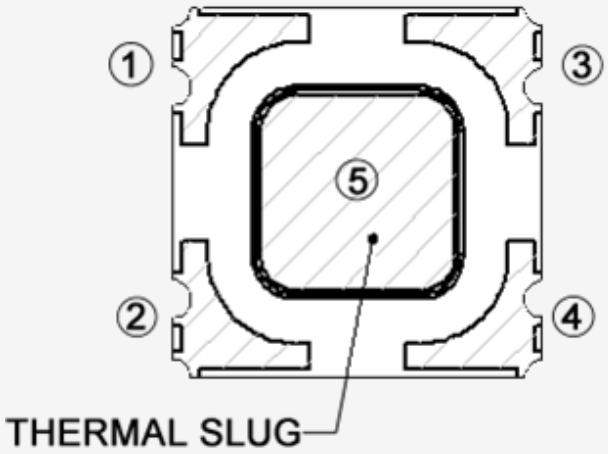
Rethinking UV Light Sources

275nm SMD 10mW



- **275nm UVCLEAN® LED**
- **10mW output power**
- **Applications: sterilization, medical, sensors**
- **Small foot print — 4.2mm x 4.2mm**
- **Lead (Pb) free and ROHS complaint**
- **Reflow solderable**





COPYRIGHT © 2014 Sensor Electronics Technology, ALL RIGHTS RESERVED

Device Characteristics

Absolute Maximum Ratings, $T_A = 25\ ^oC$

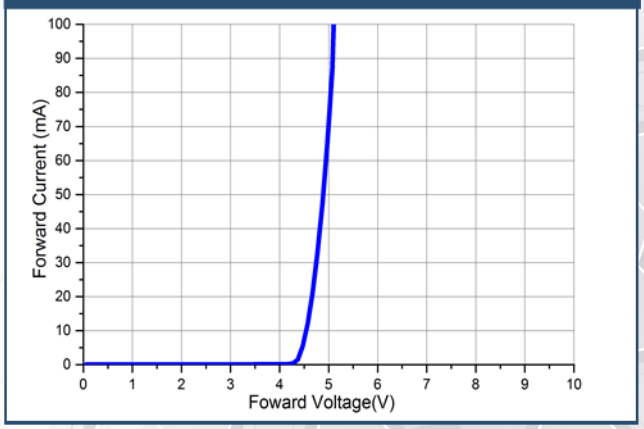
Parameter	Unit	Maximum Rated Value no external heat sink	Maximum Rated Value with external heat sink $\theta_{ca} < 10\ ^oC/W$
Power Dissipation, DC	mW	120	1500
Forward Current, DC	mA	20	200
Reverse Voltage	V	-6	-6

Electro-Optical Characteristics

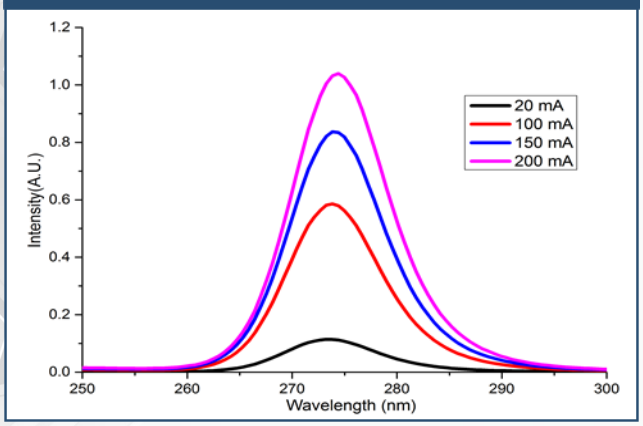
$T_A = 25\ ^oC$; Forward Current I_f = 200mA, with external heat sink θ_{ca}<10 $^oC/W$

Peak Wavelength λ_p (nm)	Part Number	Optical Power P_{out} (mW)		Forward Voltage V_f (V)		Viewing Angle $2\theta_{1/2}(^o)$	FWHM nm	
		Min	Typ.	Typ.	Max	Typ.	Typ.	Max
275 ±5	UVCLEAN275SMD42-10mW	8	10	5.5	7.5	120	12	15

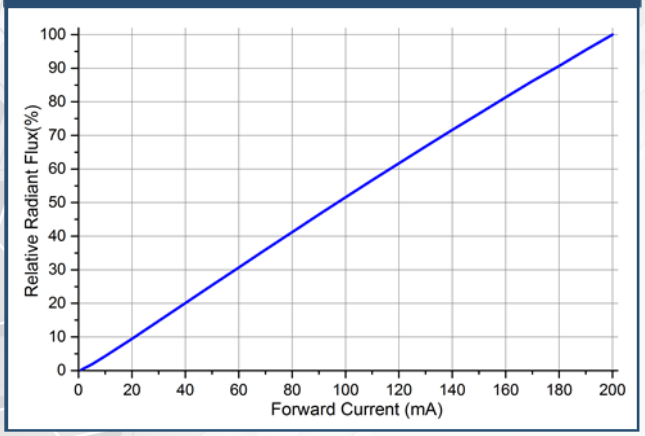
Typical I-V Characteristic



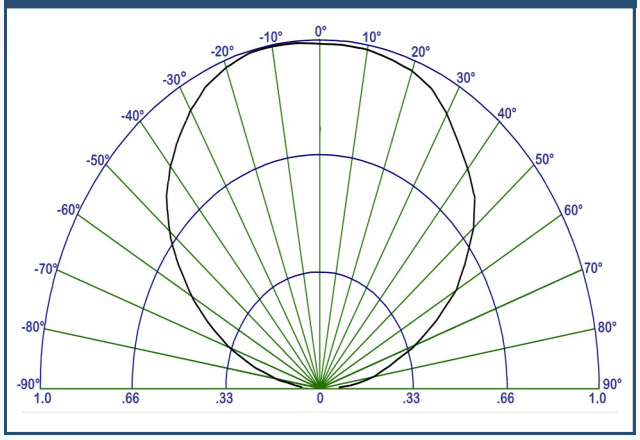
Typical Wavelength for Varying Applied Current
(Peak λ_p=274 nm)



Typical Optical Power Characteristic



Typical Angular Diagram



Notes:
Peak wavelength measurement tolerance is +/- 2 nm
Optical power output measurement tolerance is +/- 10%
Forward voltage measurement tolerance is +/- 2%
θ_{ca}: Thermal resistance from solder point to ambient

⚠ WARNING
UV LEDs
High intensity ultraviolet light
Eye and skin hazard - avoid exposure to eyes/skin
Do not look directly at light - use eye protection
Use warning labels on systems containing UV LEDs