



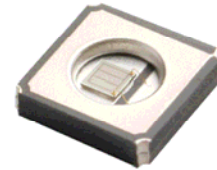
preliminary

Series 440 - Ceramics

High Power UV - LED

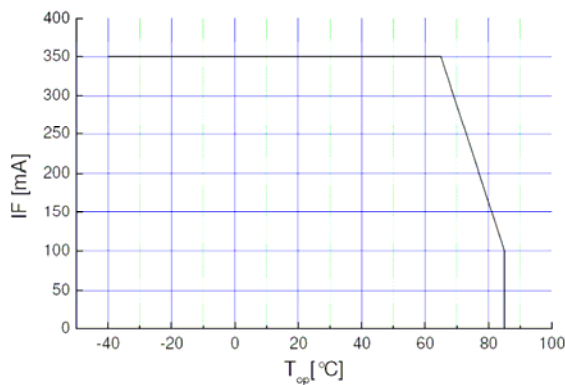
Features

- size 3.8(L) x 3.8(W) x 0.9(H) mm
- circuit substrate: AlN Ceramics
- devices are ROHS conform
- lead free solderable. soldering pads: silver plated
- taped in 16 mm blister tape. cathode to transporting perforation
- all devices sorted into luminous intensity classes
- taping: face-up (T)
- high radiation intensity types



Absolute Maximum Ratings

$I_{F, max}$ [mA]	$I_{F, P}$ [mA] 100 μ s $\tau=1: 10$	$t_p \leq$	V_R [V]	allowable $I_{R, max}$ [mA]	Thermal resistance R_{thJA} [K / W]	T_{Op} [°C]	T_{St} [°C]
350	800		1	20	10	-40...85	-40...100



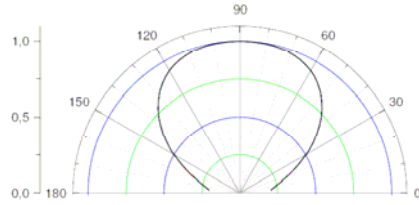
Maximal forward current (DC) characteristic

electrostatic discharge classification (MIL-STD-883E)

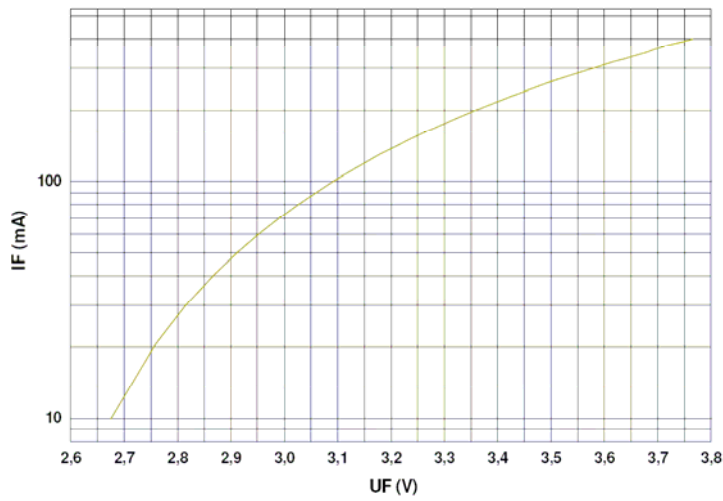
class 1

Electro-Optical Characteristics

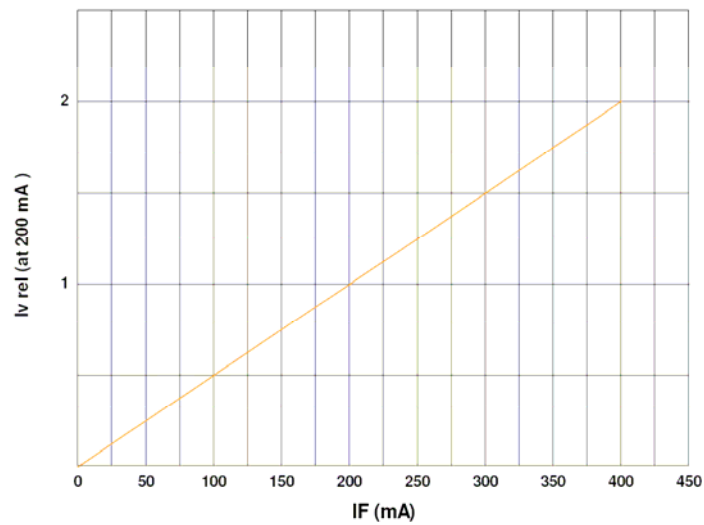
Type	Marking at	measured at I_F [mA]	V_F [V]		λ_p [nm]		I_e [mW/sr]		Φ_e [mW]	
			typ	max	min	max	min	max	min	max
RLCE-440-365		350	3.6	4.5	365	370	15	32	40	90
RLCE-440-380	cathode	350	3.6	4.5	380	385	32	55	90	160
RLCE-440-390	cathode	350	3.6	4.5	390	395	45	95	130	260
RLCE-440-400	cathode	350	3.6	4.5	400	405	70	110	190	310



view angle



$U_F - I_F$
characteristic



$I_F - I_{v, rel}$
characteristic

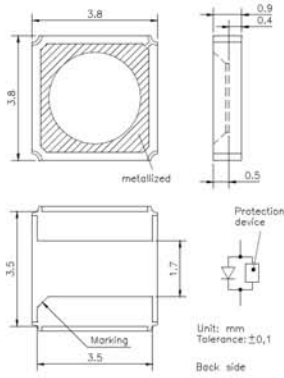


ROITHNER LASERTECHNIK GmbH

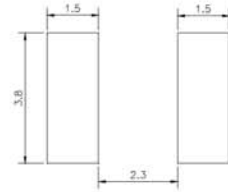
WIEDNER HAUPTSTRASSE 76 1040 VIENNA AUSTRIA
 TEL. +43 1 586 52 43 -0, FAX. -44, OFFICE@ROITHNER-LASER.COM



Outline Drawing

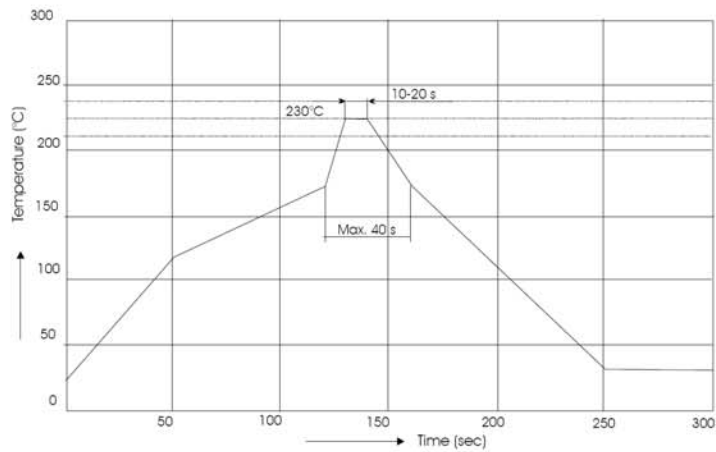


Recommended Soldering Patterns

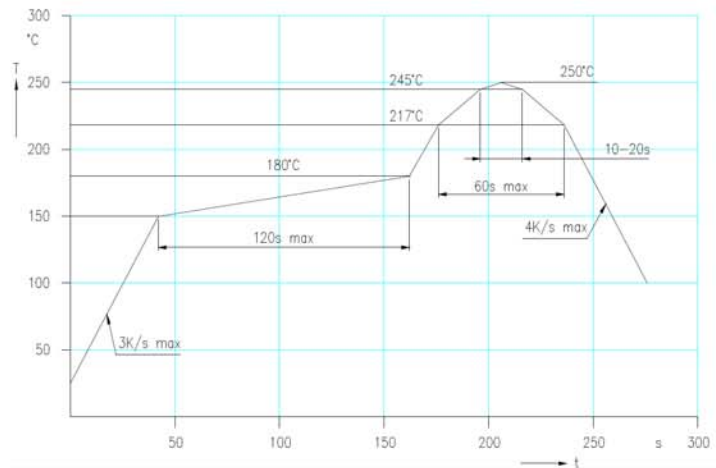


recommended min. thermal resistance
 device—ambient: 20 K/W
 4x4 mm² on IMS
 with insulating thickness < 70 μm

Soldering Conditions



IR reflow
 soldering
 profile



IR reflow
 soldering
 profile for lead
 free soldering

Manual soldering: max power of iron 25W/ 3s/ 300°C

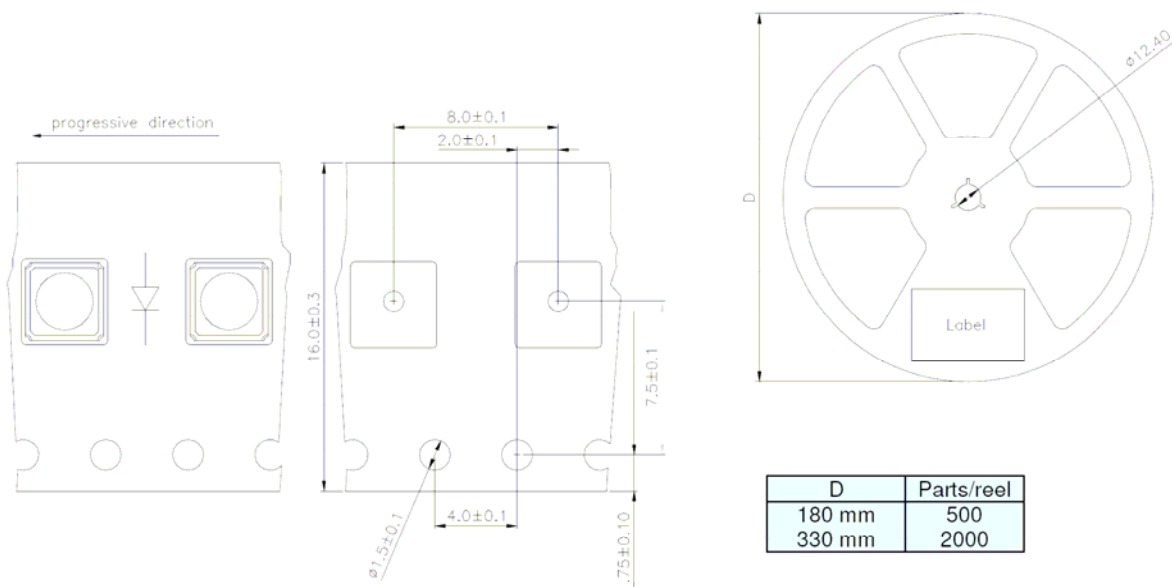


Warnings and Handling Instructions

- **UV LEDs emit intense but mainly invisible ultraviolet radiation when in operation, which may be harmful to eyes, even for brief periods.**
- *** DO NOT LOOK DIRECTLY INTO THE UV LED DURING OPERATION ***
- *** BE SURE THAT YOU AND ALL PERSONS IN THE VICINITY WEAR SAFETY GOGGLES THAT PROVIDE SUITABLE UV PROTECTION WHEN A UV LED IS OPERATING ***
- *** KEEP CHILDREN AWAY FROM THE OPERATING VICINITY ***
- *** KEEP UV LEDs OUT OF THE REACH OF CHILDREN ***
- **If you incorporate a UV LED into a product, be sure to provide appropriate cautionary labels and instructions.**
- **Please follow all standard procedures for storing, handling, cleaning, mounting, soldering, disposal, or otherwise handling LED dies or packaged LEDs, including static electricity protection.**
- **The user has the responsibility to inform, train and instruct customers and coworkers**

- **UV- LED are ESD sensitive (Class1). The handling and usage have to consider this device property**

Tape And Reel Packing



Packing:

The reel is sealed in special plastic bag with integrate ESD protection (MIL - STD 81705) including a silica dry-pack