

Series 440 – Ceramics, IR High radiant intensity

OCI-440 970, OCI-440 1020, OCI-440 1050

Features

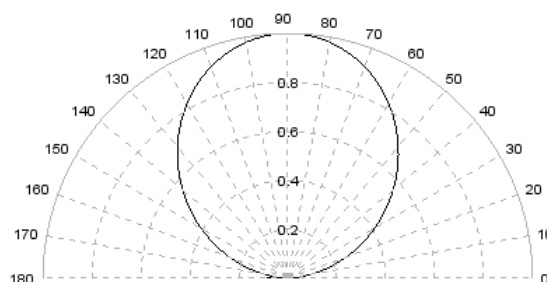
- size 3.8(L) x 3.8(W) x 0.9(H) mm
- circuit substrate: AlN Ceramics
- devices are ROHS conform
- lead free solderable. soldering pads: silver plated
- taped in 16 mm blister tape. cathode to transporting perforation
- all devices sorted into luminous intensity classes
- taping: face-up (T)



Electro-Optical Characteristics

Measured at 350mA, $T_a = 25^\circ\text{C}$

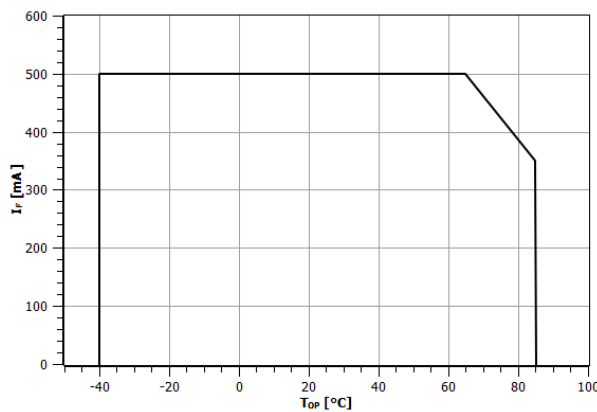
Parameter	Symbol	Type	Values			Unit
			min	typ	max	
Forward Voltage	V_F			1,2	1,5	V
Peak Wavelength	λ_p	OCI-440 970	955	970	985	nm
		OCI-440 1020	1005	1020	1035	
		OCI-440 1050	1035	1050	1065	
Spectral Width	$\Delta\lambda$	OCI-440 970		40		nm
		OCI-440 1020		40		
		OCI-440 1050		50		
Radiant Intensity	I_e	OCI-440 970	4,5	9,0		mW/sr
		OCI-440 1020	8,5	17,0		
		OCI-440 1050	8,0	16,0		



view angle

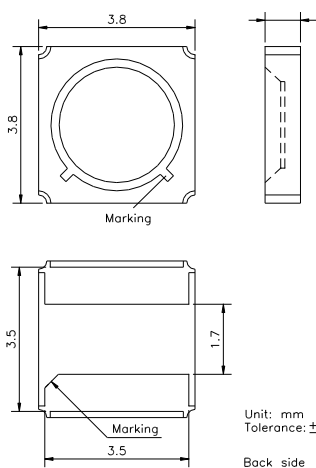
Absolute Maximum Ratings

Parameter	Symbol	Values		Unit
		min	max	
Forward Current	$I_{F,max}$		500	mA
Forward Current, pulsed $t_p \leq 100\mu s, \tau = 1:10$	$I_{F,p}$		1000	mA
Reverse Voltage	V_R		5	V
Reverse Current	I_R		100	μA
Thermal Resistance	R_{thJA}		10	K/W
Operating Temperature	T_{Op}	-40	+85	$^{\circ}C$
Storage Temperature	T_{St}	-40	+85	$^{\circ}C$



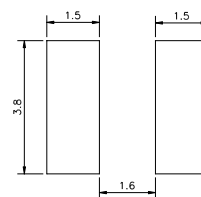
Maximal forward current (DC) characteristic

Outline Drawing



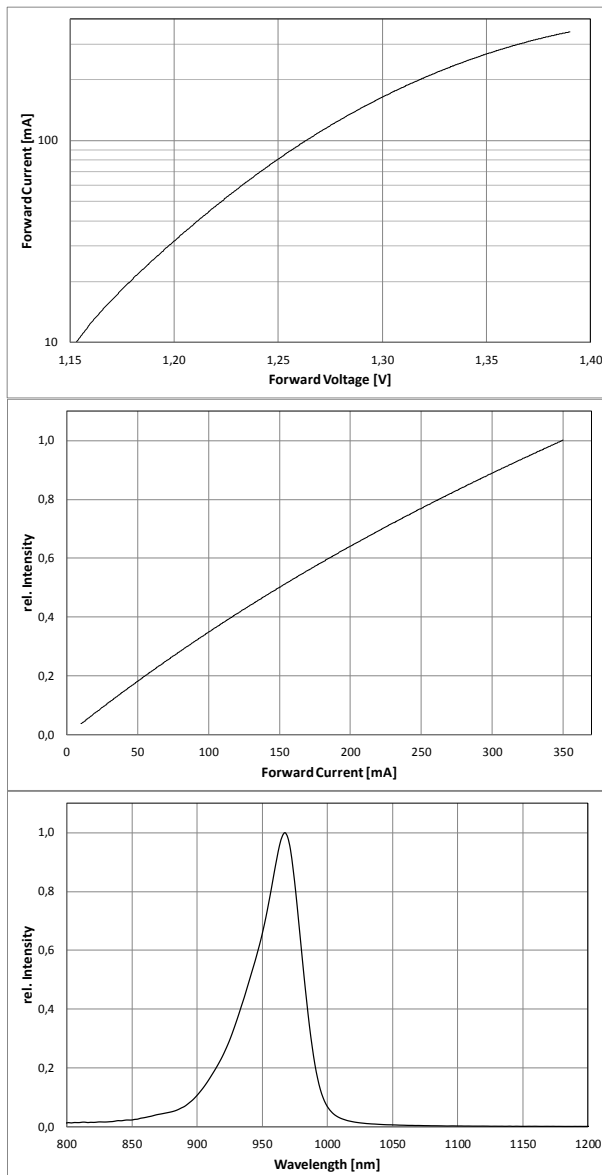
Marking at Anode

Recommended Soldering Patterns



recommended max. thermal resistance
device-ambient: 20 K/W

OCI-440 970nm

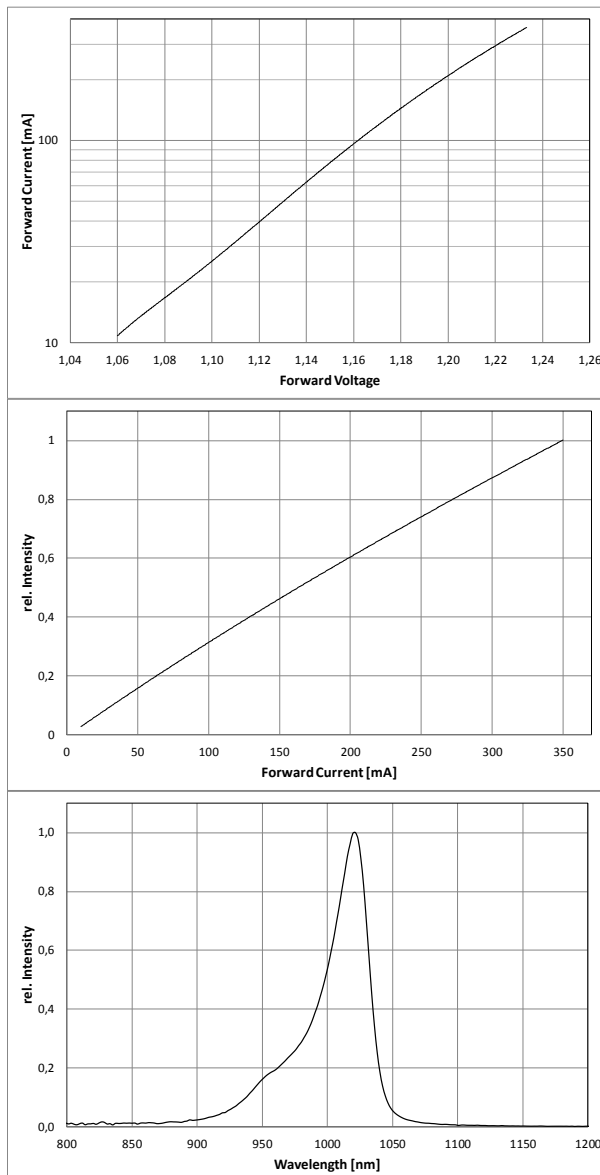


$U_F - I_F$
characteristic

$I_F - I_{e, rel}$
characteristic

Spectrum
@ 350mA

OCI-440 1020nm

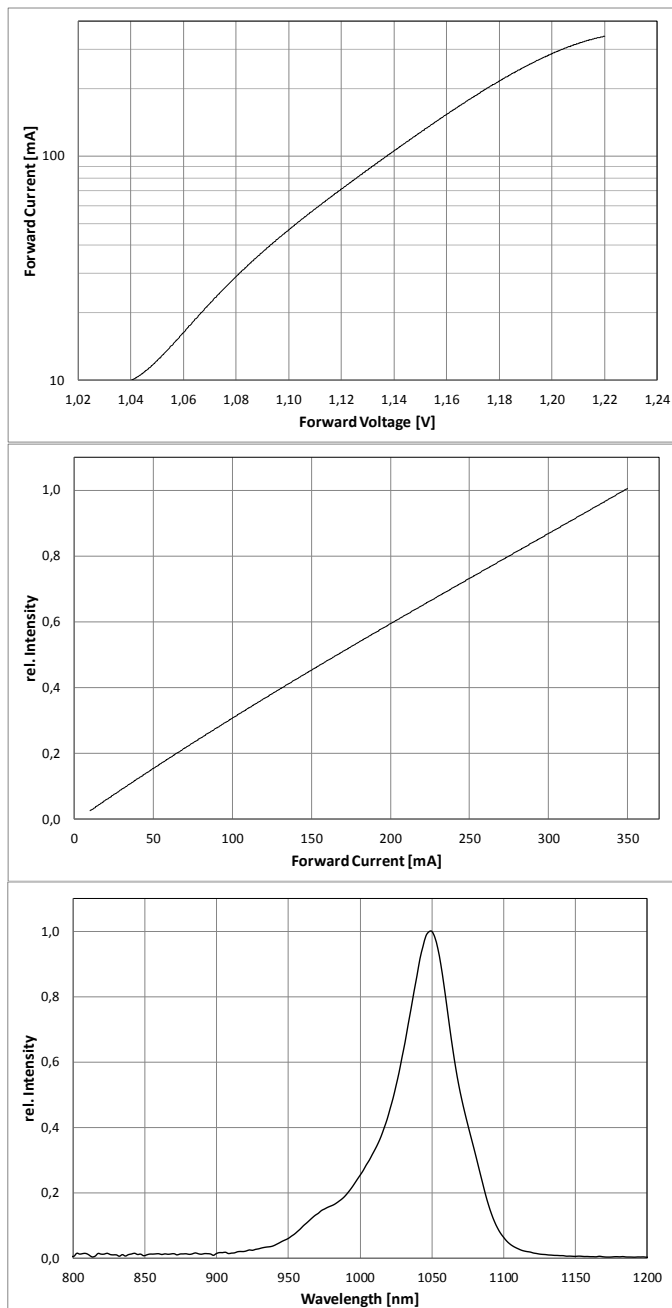


$U_F - I_F$
characteristic

$I_F - I_{e, rel}$
characteristic

Spectrum
@ 350mA

OCI-440 1050nm

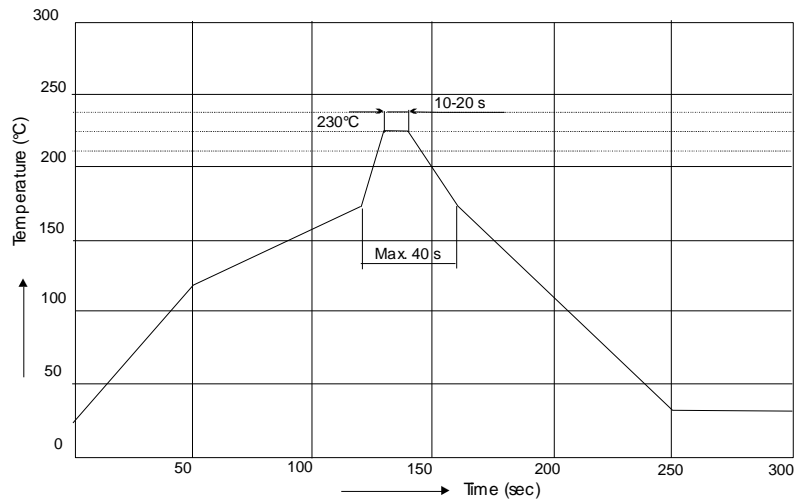


$U_F - I_F$
characteristic

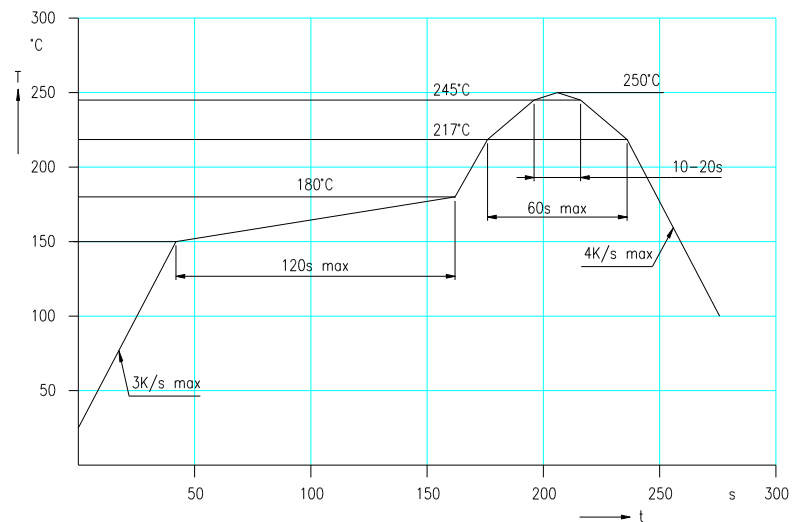
$I_F - I_{e, rel}$
characteristic

Spectrum
@ 350mA

Soldering Conditions



IR reflow soldering profile



IR reflow soldering profile for lead free soldering

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

Ordering Code For Parts

<u>Series</u>	<u>Wavelength</u>	<u>Encapsulation</u>	<u>Packaging</u>
OCI-440	- ????????	X	T
			T - taped
		X - uncolored clear	

Type definition, e.g. OCI-440 1020-X -T

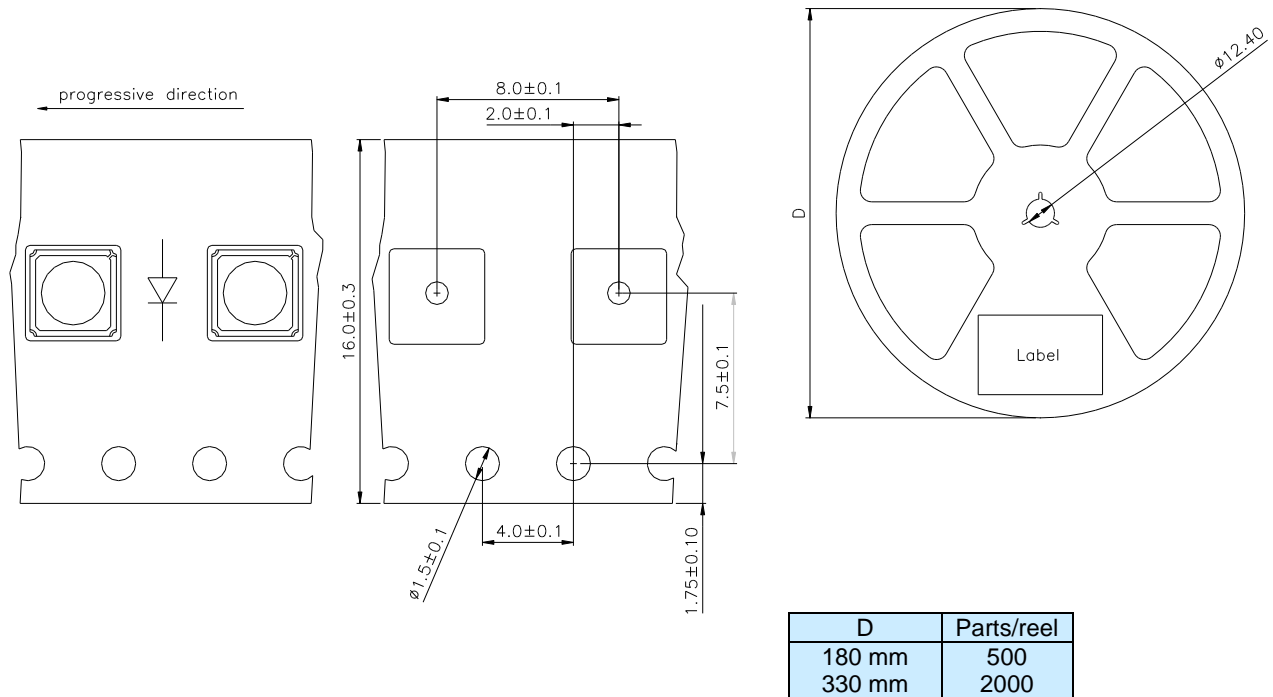
LED Luminous Intensity Groups And Subgroups [mW/sr]

(general information – not this device specific)

G:	1.80	-	2.80	G1:	1.80	-	2.24
				G2:	2.24	-	2.80
H:	2.80	-	4.50	H1:	2.80	-	3.55
				H2:	3.55	-	4.50
J:	4.50	-	7.10	J1:	4.50	-	5.60
				J2:	5.60	-	7.10
K:	7.10	-	11.2	K1:	7.10	-	9.00
				K2:	9.00	-	11.20
L:	11.2	-	18.0	L1:	11.20	-	14.00
				L2:	14.00	-	18.00
M:	18	-	28	M1:	18.00	-	22.40
				M2:	22.40	-	28.00
N:	28	-	45	N1:	28.00	-	35.50
				N2:	35.50	-	45.00
P:	45	-	71	P1:	45.00	-	56.00
				P2:	56.00	-	71.00
Q:	71	-	112	Q1 :	71.00	-	90.00
				Q2 :	90.00	-	112.00
R:	112	-	180	R1 :	112.00	-	140.00
				R2 :	140.00	-	180.00
S:	180	-	280	S1 :	180.00	-	224.00
				S2 :	224.00	-	280.00

Measured according to CIE 127. All SMD-LEDs are 100% measured and selected on full automated equipment with an accuracy of ± 11 %.

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

Label

Order No.	XXXXXXXXXX	Customer order No.
Type	OCI-440 ?????-??-T	
Intensity group	ZZ	
Charge No.	1122-AAAAAA	11 Week – 22 year – A internal identification
Quantity	9999	

Attention please:

The information describes the type of component and shall not considered as assured characteristics. Terms of delivery and rights to change reserved. Due to technical requirements components may contain dangerous substances. The data sheet may changed without prior information; the valid issue will be on our webpage in internet. Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer. OSA opto light does not have the responsibility for the reliability and the degradation behaviour of products made with OSA opto light diodes because they depend not only on the diode but also on the conditions of manufacture or design of the final products.

Packaging: Please use the recycling operators known to you.

Components used in life support devices or systems, toys and safety systems must be expressly authorized for such purpose!