

Series 400 - Ceramics

thin film technology

preliminary

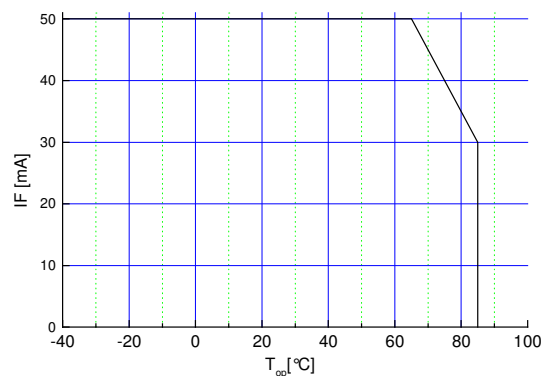
Features

- size 3,0(L) x 2,0(W) x 1,0(H) mm
- circuit substrate: Al₂O₃ Ceramics
- devices are ROHS conform
- lead free solderable, soldering pads: gold plated
- taped in 8 mm blister tape, cathode to transporting perforation
- all devices sorted into luminous intensity classes
- taping: face-up (T)
- high luminous intensity types
- on request sorted in color classes



Absolute Maximum Ratings

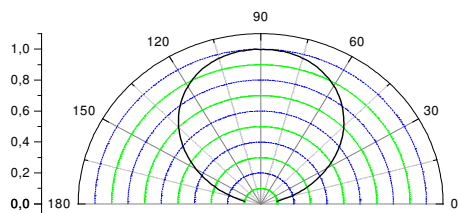
$I_{F, max}$ [mA]	$I_{F, P}$ [mA] $100 \mu s \tau=1: 10$	V_R [V]	$I_{R, max}$ [μ A]	Thermal resistance R_{thJA} [K / W]	T_{Op} [°C]	T_{St} [°C]
50	70	5	100	60	-40...85	-40...85



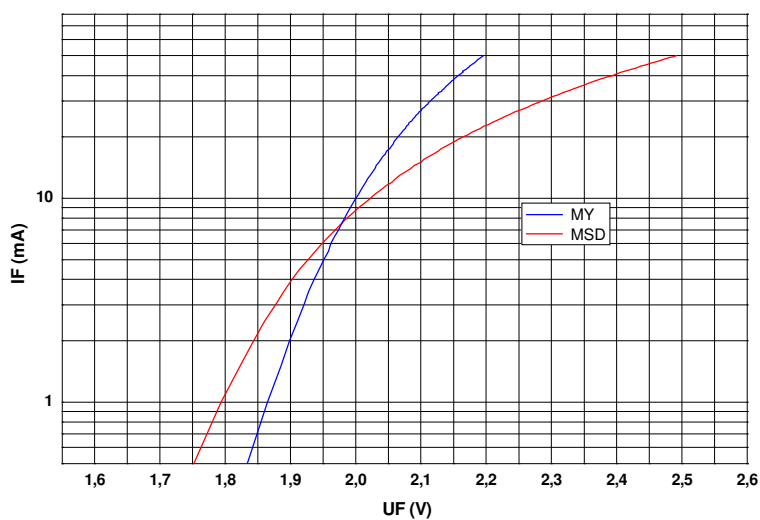
Maximal
forward
current (DC)
characteristic

Electro-Optical Characteristics

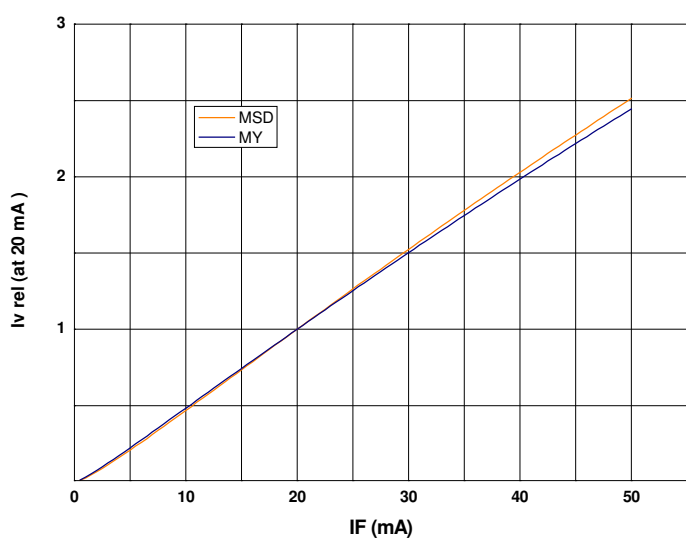
Type	Emitting color	Marking at	Measurement I_F [mA]	V_F [V]		λ_d / λ_p^* [nm]	I_V [mcd]	
				typ	max		min	typ
OCL-400 MY	yellow	anode	20	2,1	2,6	589	250	400
OCL-400 MSD	red	anode	20	2,1	2,6	624	250	400



view angle

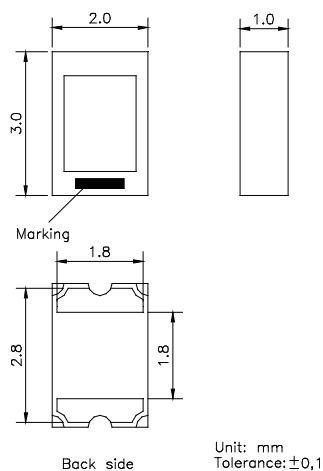


$U_F - I_F$
characteristic

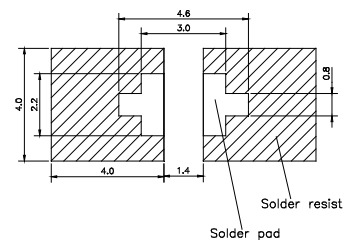


$I_F - I_{v, rel}$
characteristic

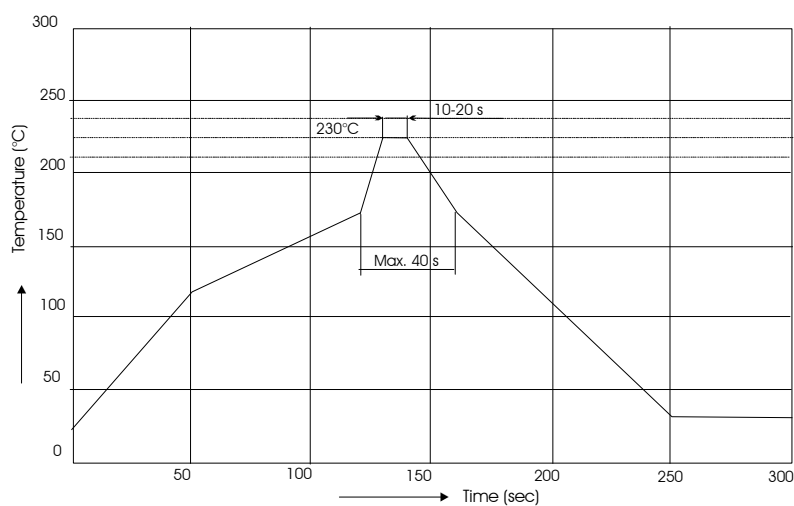
Outline Drawing



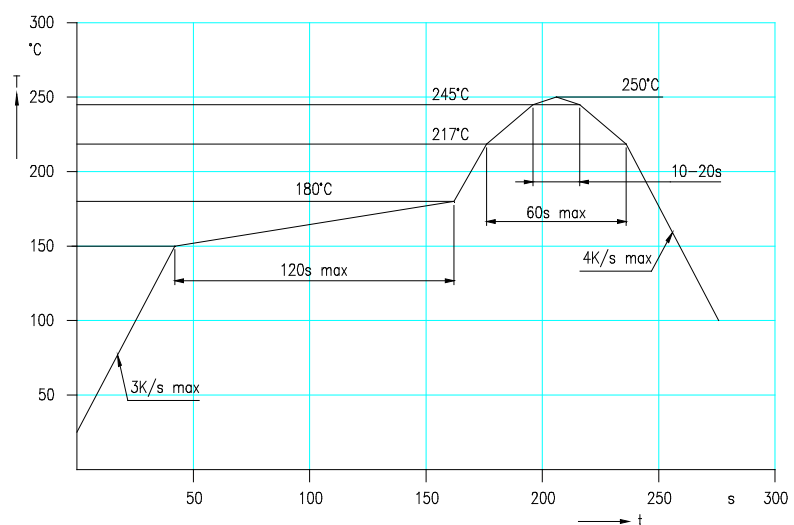
Recommended Soldering Patterns



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

Series Color Encapsulation Packaging

OCL-400 - ??????? - X - T

T - taped

X - uncolored clear

Type definition, e.g. OCL-400 MY-X -T

LED Luminous Intensity Groups And Subgroups [mcd]

(general information – not this device specific)

C:	0.28	-	0.45	C1:	0.28	-	0.36	Q1:	71	-	90
D:	0.45	-	0.71	C2:	0.36	-	0.45	Q2:	90	-	112
E:	0.71	-	1.12	D1:	0.45	-	0.56	R1:	112	-	140
F:	1.12	-	1.80	D2:	0.56	-	0.71	R2:	140	-	180
G:	1.80	-	2.80	E1:	0.71	-	0.90	S1:	180	-	224
H:	2.80	-	4.50	E2:	0.90	-	1.12	S2:	224	-	280
J:	4.50	-	7.10	F1:	1.12	-	1.40	T1:	280	-	355
K:	7.10	-	11.20	F2:	1.40	-	1.80	T2:	355	-	450
L:	11.20	-	18.00	G1:	1.80	-	2.24	U1:	450	-	560
				G2:	2.24	-	2.80	U2:	560	-	710
M:	18	-	28	H1:	2.80	-	3.55	V1:	710	-	900
N:	28	-	45	H2:	3.55	-	4.50	V2:	900	-	1120
P:	45	-	71	J1:	4.50	-	5.60	W1:	1120	-	1420
Q:	71	-	112	J2:	5.60	-	7.10	W2:	1420	-	1800
R:	112	-	180	K1:	7.10	-	9.00	X1:	1800	-	2250
S:	180	-	280	K2:	9.00	-	11.20	X2:	2250	-	2800
T:	280	-	450	L1:	11.20	-	14.00	Y1:	2800	-	3550
U:	450	-	710	L2:	14.00	-	18.00	Y2:	3550	-	4500
V:	710	-	1120	M1:	18.00	-	22.40	Z1:	4500	-	5750
W:	1120	-	1800	M2:	22.40	-	28.00	Z2:	5750	-	7100
X:	1800	-	2800	N1:	28.00	-	35.50				
Y:	2800	-	4500	N2:	35.50	-	45.00				
Z:	4500	-	7100	P1:	45.00	-	56.00				
				P2:	56.00	-	71.00				

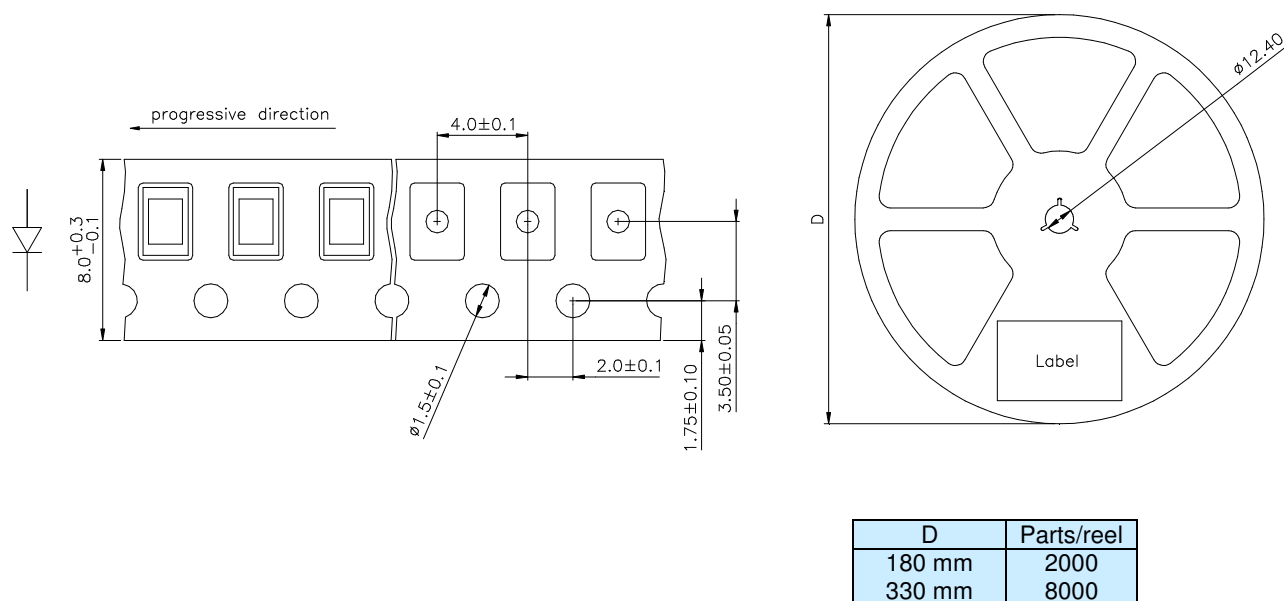
Measured according to CIE 127. All SMD-LEDs are 100% measured and selected on full automated equipment with an accuracy of ± 11 %.

**Special service: Brightness selection in sub selections possible.
Color selection in sub selections possible (each subgroup per reel).**

Attention please:

The LED output is strong enough to injure human eyes. Precautions must be taken to prevent looking directly at the LED with unaided eyes for more than a few seconds. Flashing lights have been known to cause discomfort in people, you can prevent this by taking precautions during use. Also, people should be cautious when using equipment where these LED's are incorporated.

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 OCL-400 ?????-??-T

Intensity group ZZ Color class: CC

Color class - optional

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.

Packaging:

Please use the recycling operators known to you.

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