

Series 153 - 1206 - Bipolar bicolor

thin film technology

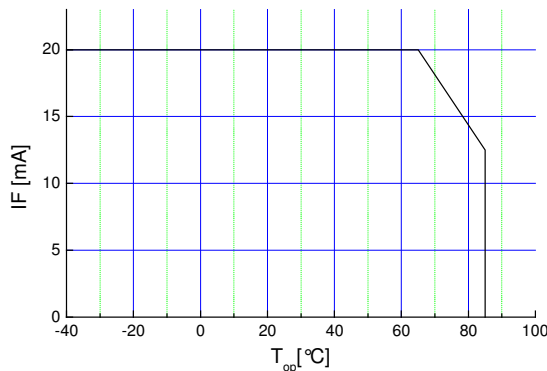
Features

- size 1206: 3.2(L) x 1.6(W) x 1.2(H) mm
- circuit substrate: glass laminated epoxy
- devices are ROHS conform
- lead free solderable. soldering pads: gold plated
- taped in 8 mm blister tape. cathode of defined color is placed to transporting perforation
- all devices sorted into luminous intensity classes
- taping: face-up (TU) or face-down (TD) possible
- high luminous intensity types
- on request sorted in color classes



Absolute Maximum Ratings

$I_{F, max}$ [mA]	$I_{F,P}$ [mA] $tp \leq 100 \mu s$ $\tau=1: 10$	V_R [V]	$I_{R, max}$ [μA]	Thermal resistance R_{thJA} [K / W]	T_{Op} [$^{\circ}C$]	T_{St} [$^{\circ}C$]
20	70			450	-40...85	-40...85



Maximal forward current (DC) characteristic

electrostatic discharge classification (MIL-STD-883E)

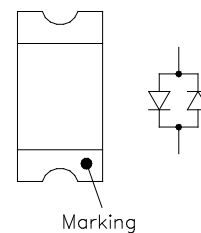
class 1

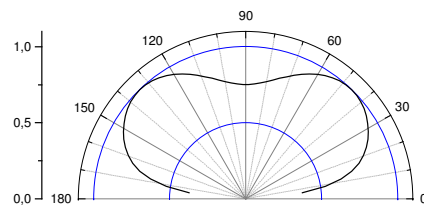
Electro-Optical Characteristics

Type	Combination	Marking at cathode
OLS-153 MSD/GC525	red / green	green
OLS-153 MY/GC525	yellow / green	green
OLS-153 MSD/MY	red / yellow	yellow

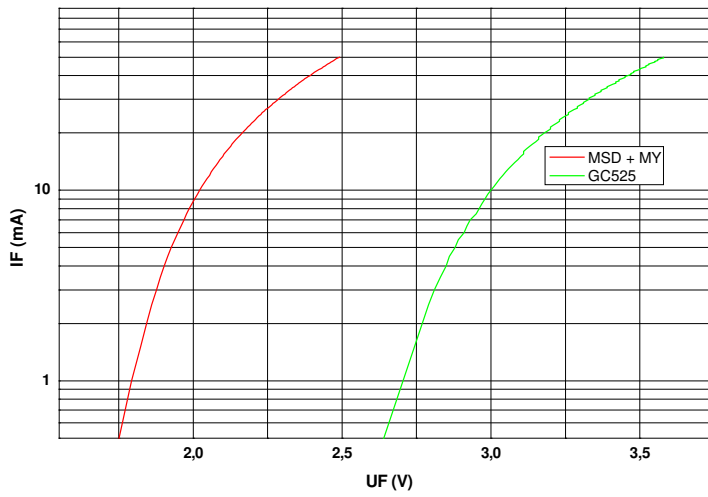
Other combinations are possible also

Emitting color	Measurement I_F [mA]	V_F [V]		λ_d / λ_p^* [nm]	I_V [mcd]	
		typ	max		min	typ
GC525 - green	20	3.3	4.0	525	280	400
MY - yellow	20	2.1	2.6	589	250	400
MSD - red	20	2.1	2.6	624	250	400

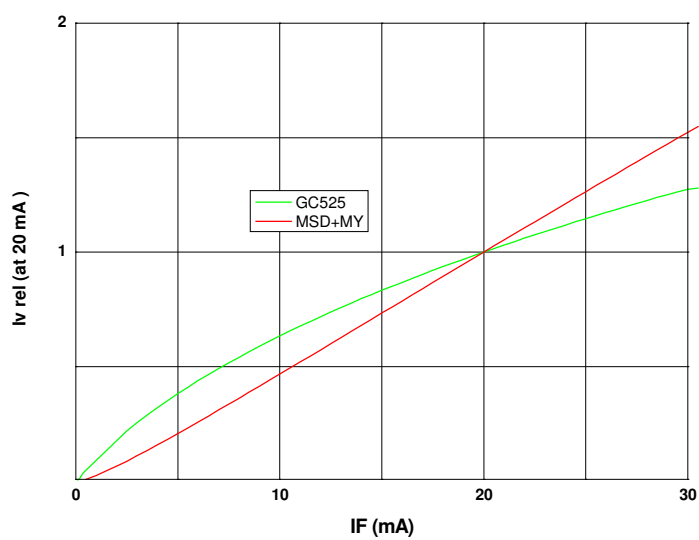




view angle

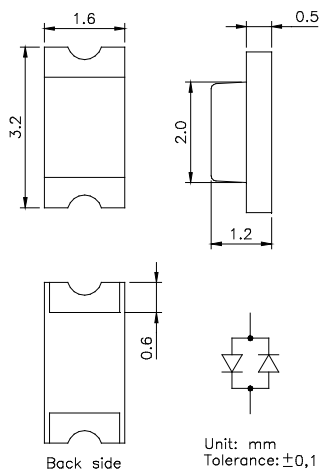


$U_F - I_F$
characteristic

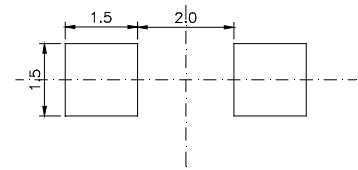


$I_F - I_{v,rel}$
characteristic

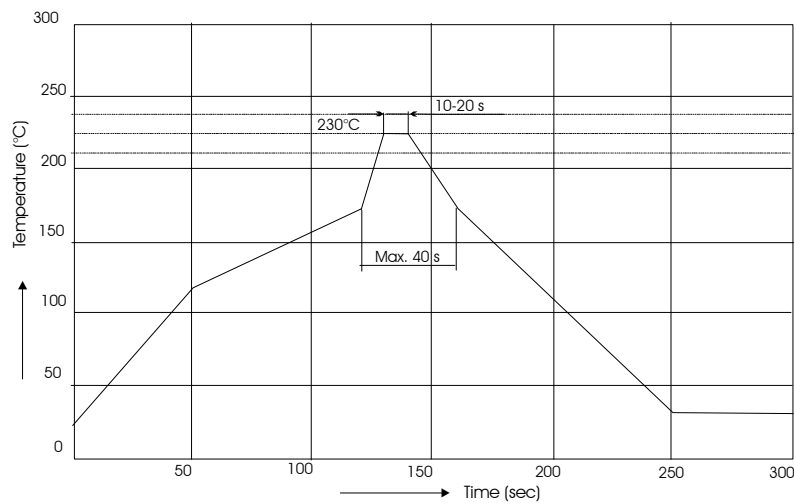
Outline Drawing



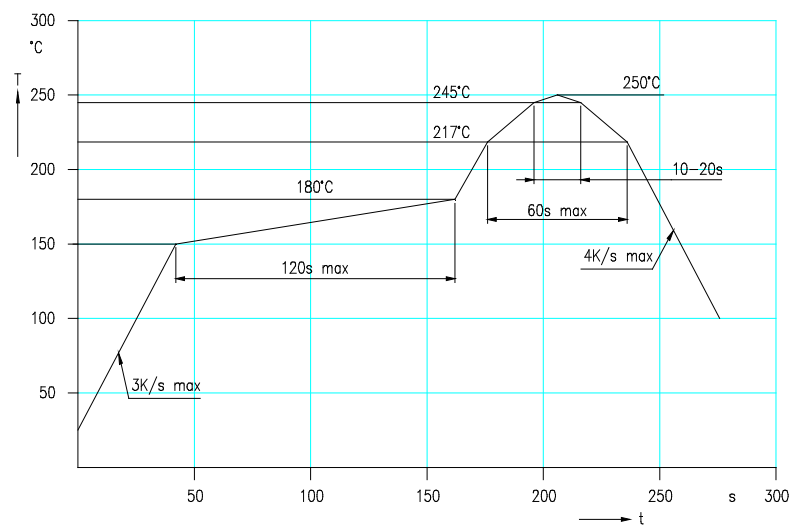
Recommended Soldering Patterns



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

OLS-153

- ???????

- ?

- ?

TU - taped up
TD - taped down

CD - colored diffused (standard) possible for red.
green. blue
XD - uncolored diffused
C - colored clear possible for red. green. blue
X - uncolored clear

Type definition, e.g. OLS-153 MSD/GC525-CD-TU

LED Luminous Intensity Groups And Subgroups [mcd]

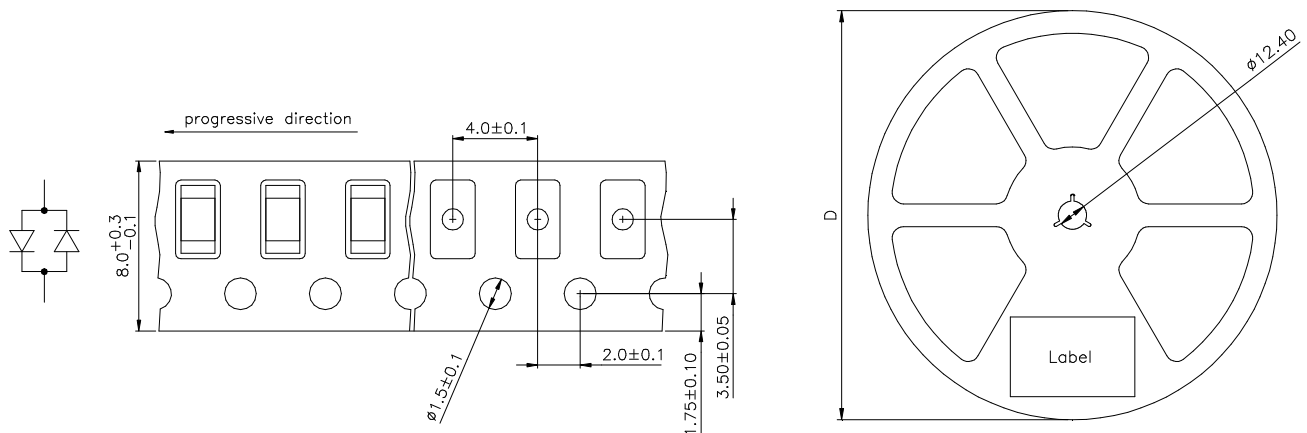
(general information – not this device specific)

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 $\pm 11\%$.

**Special service: Brightness selection in sub selections possible.
Color selection in 3 sub selections possible (each subgroup per reel).**

Tape And Reel Packing



D	Parts/reel
180 mm	3000
330 mm	12000

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	OLS-153 ?????-??-T	
Intensity group	ZZ	Color class: CC
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 and safety systems must be expressly authorized for such purpose!

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