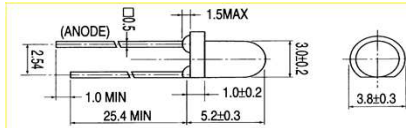


ABSOLUTE MAXIMUM RATING		
PARAMETER	SYMBOL	RANGE
Peak Forward Current	Ifp	100mA
Reverse Voltage	Vr	5V
Operating Temperature Range	Top	-40°C to +80°C
Storage Temperature Range	Tsg	-48°C to +80°C
Lead Soldering Temperature	Tsol	268°C for 5 seconds

TEST CONDITIONS			
PARAMETER	SYMBOL	UNIT	TEST CONDITON
Reverse Voltage	Vr	V	Ir=10µA
Reverse Current	Ir	µA	Vr=5V
Forward voltage	Vf	mV	If=20mA
Luminous Intensity	Iv	mcd	If=20mA

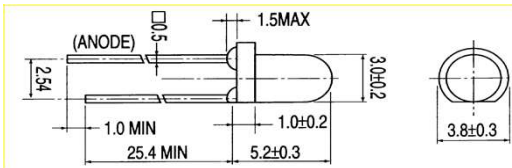


3mm LED SPECIFICATION WITH FLANGE

SL NO	PART NO	SIZE	SHAPE	COLOUR	LENS TYPE	INTENSITY (Iv in mcd)	WAVE LENGTH (nm / ct)	FORWARD VOLTAGE (V)	VIEWING ANGLE IN DEGREES
1	LLR 011	3mm	ROUND	WHITE	WHITE DIFFUSED	400 - 700	2200 - 7500K	3.0 - 3.5V	75
2	LLR 111	3mm	ROUND	BLUE	COLOUR DIFFUSED	300 - 600	450 - 470	3.0 - 3.5V	75
3	LLR 211	3mm	ROUND	GREEN	COLOUR DIFFUSED	45 - 100	565 - 570	1.8 - 2.4V	65
3	LLR 211U	3mm	ROUND	GREEN	COLOUR DIFFUSED	120 - 200	570 - 575	1.8 - 2.4V	65
4	LLR 211UPG	3mm	ROUND	GREEN	COLOUR DIFFUSED	400 - 700	525 - 530	3.0 - 3.5V	65
5	LLR 311	3mm	ROUND	YELLOW	COLOUR DIFFUSED	200 - 350	585 - 595	1.8 - 2.4V	65
6	LLR 311U	3mm	ROUND	YELLOW	COLOUR DIFFUSED	400 - 600	585 - 595	1.8 - 2.4V	65
7	LLR 311UH	3mm	ROUND	YELLOW	COLOUR DIFFUSED	1000 - 1500	585 - 595	1.8 - 2.4V	55
7	LLR 411	3mm	ROUND	RED	COLOUR DIFFUSED	200 - 350	620 - 630	1.8 - 2.4V	65
8	LLR 411U	3mm	ROUND	RED	COLOUR DIFFUSED	400 - 600	620 - 630	1.8 - 2.4V	65
9	LLR 411UH	3mm	ROUND	RED	COLOUR DIFFUSED	1000 - 1500	620 - 630	1.8 - 2.4V	65
10	LLR 711	3mm	ROUND	AMBER	COLOUR DIFFUSED	150 - 300	605 - 610	1.8 - 2.4V	65
11	LLR 711U	3mm	ROUND	AMBER	COLOUR DIFFUSED	300 - 450	605 - 610	1.8 - 2.4V	65
12	LLR 031U	3mm	ROUND	WHITE	WATER CLEAR	4000 - 7000	2200 - 7500k	3.0 - 3.5V	30
13	LLR 031UH	3mm	ROUND	WHITE	WATER CLEAR	10000 - 15000	2200 - 7500K	3.0 - 3.5V	20
14	LLR 131U	3mm	ROUND	BLUE	WATER CLEAR	3000 - 5000	450 - 470	3.0 - 3.5V	30
15	LLR 231	3mm	ROUND	GREEN	WATER CLEAR	400 - 600	565 - 570	1.8 - 2.4V	20
16	LLR 231U	3mm	ROUND	GREEN	WATER CLEAR	1000 - 1500	570 - 575	1.8 - 2.4V	20
17	LLR 231UPG	3mm	ROUND	GREEN	WATER CLEAR	10000 - 15000	525 - 530	3.0 - 3.5V	20
18	LLR 331	3mm	ROUND	YELLOW	WATER CLEAR	600 - 1000	585 - 595	1.8 - 2.4V	20
19	LLR 331U	3mm	ROUND	YELLOW	WATER CLEAR	2000 - 2500	585 - 595	1.8 - 2.4V	20
20	LLR 331UH	3mm	ROUND	YELLOW	WATER CLEAR	4000 - 6000	585 - 595	1.8 - 2.4V	20
21	LLR 431	3mm	ROUND	RED	WATER CLEAR	800 - 1200	620 - 630	1.8 - 2.4V	20
22	LLR 431U	3mm	ROUND	RED	WATER CLEAR	2000 - 2500	620 - 630	1.8 - 2.4V	20
23	LLR 431UH	3mm	ROUND	RED	WATER CLEAR	4000 - 6000	620 - 630	1.8 - 2.4V	20
24	LLR 731	3mm	ROUND	AMBER	WATER CLEAR	600 - 1000	605 - 610	1.8 - 2.4V	20
25	LLR 731U	3mm	ROUND	AMBER	WATER CLEAR	1500 - 2000	605 - 610	1.8 - 2.4V	20
26	LLR 141	3mm	ROUND	BLUE	COLOUR TRANSPARENT	3000 - 5000	450 - 470	3.0 - 3.5V	30
27	LLR 241	3mm	ROUND	GREEN	COLOUR TRANSPARENT	400 - 600	560 - 565	1.8 - 2.4V	25
28	241U	3mm	ROUND	GREEN	COLOUR TRANSPARENT	1000 - 1500	570 - 575	1.8 - 2.4V	25
29	LLR 241UPG	3mm	ROUND	GREEN	COLOUR TRANSPARENT	10000 - 15000	525 - 530	3.0 - 3.5V	25
30	LLR 341	3mm	ROUND	YELLOW	COLOUR TRANSPARENT	600 - 1000	585 - 595	1.8 - 2.4V	20
31	LLR 341U	3mm	ROUND	YELLOW	COLOUR TRANSPARENT	2000 - 2500	585 - 595	1.8 - 2.4V	20
32	LLR 341UH	3mm	ROUND	YELLOW	COLOUR TRANSPARENT	4000 - 6000	585 - 595	1.8 - 2.4V	20
33	LLR 441	3mm	ROUND	RED	COLOUR TRANSPARENT	800 - 1200	620 - 630	1.8 - 2.4V	20
34	LLR 441U	3mm	ROUND	RED	COLOUR TRANSPARENT	2000 - 2500	620 - 630	1.8 - 2.4V	20
35	LLR 441UH	3mm	ROUND	RED	COLOUR TRANSPARENT	4000 - 6000	620 - 630	1.8 - 2.4V	20
36	LLR 741	3mm	ROUND	AMBER	COLOUR TRANSPARENT	600 - 1000	605 - 610	1.8 - 2.4V	20
37	LLR 741U	3mm	ROUND	AMBER	COLOUR TRANSPARENT	1500 - 2000	605 - 610	1.8 - 2.4V	20

ABSOLUTE MAXIMUM RATING		
PARAMETER	SYMBOL	RANGE
Peak Forward Current	I _{fp}	100mA
Reverse Voltage	V _r	5V
Operating Temperature Range	Top	-40°C to +80°C
Storage Temperature Range	T _{sg}	-48°C to +80°C
Lead Soldering Temperature	T _{sol}	268°C for 5 seconds

TEST CONDITIONS			
PARAMETER	SYMBOL	UNIT	TEST CONDITON
Reverse Voltage	V _r	V	I _r =10μA
Reverse Current	I _r	μA	V _r =5V
Forward voltage	V _f	mV	I _f =20mA
Luminous Intensity	I _v	mcd	I _f =20mA



3mm LEDs WITHOUT FLANGE

SL NO	PART NO	SIZE	SHAPE	COLOUR	LENS TYPE	INTENSITY (I _v in mcd)	WAVE LENGTH (nm / ct)	FORWARD VOLTAGE (V)	VIEWING ANGLE IN DEGREES
1	LLR 011WC	3mm	ROUND	WHITE	WHITE DIFFUSED	400 - 700	2200 - 7500K	3.0 - 3.5V	75
2	LLR 111WC	3mm	ROUND	BLUE	COLOUR DIFFUSED	300 - 600	450 - 470	3.0 - 3.5V	75
3	LLR 211WC	3mm	ROUND	GREEN	COLOUR DIFFUSED	45 - 100	565 - 570	1.8 - 2.4V	65
3	LLR 211UWC	3mm	ROUND	GREEN	COLOUR DIFFUSED	120 - 200	570 - 575	1.8 - 2.4V	65
4	LLR 211UPGWC	3mm	ROUND	GREEN	COLOUR DIFFUSED	400 - 700	525 - 530	3.0 - 3.5V	65
5	LLR 311WC	3mm	ROUND	YELLOW	COLOUR DIFFUSED	200 - 350	585 - 595	1.8 - 2.4V	65
6	LLR 311UWC	3mm	ROUND	YELLOW	COLOUR DIFFUSED	400 - 600	585 - 595	1.8 - 2.4V	65
7	LLR 311UHWC	3mm	ROUND	YELLOW	COLOUR DIFFUSED	1000 - 1500	585 - 595	1.8 - 2.4V	55
7	LLR 411WC	3mm	ROUND	RED	COLOUR DIFFUSED	200 - 350	620 - 630	1.8 - 2.4V	65
8	LLR 411UWC	3mm	ROUND	RED	COLOUR DIFFUSED	400 - 600	620 - 630	1.8 - 2.4V	65
9	LLR 411UHWC	3mm	ROUND	RED	COLOUR DIFFUSED	1000 - 1500	620 - 630	1.8 - 2.4V	65
10	LLR 711WC	3mm	ROUND	AMBER	COLOUR DIFFUSED	150 - 300	605 - 610	1.8 - 2.4V	65
11	LLR 711UWC	3mm	ROUND	AMBER	COLOUR DIFFUSED	300 - 450	605 - 610	1.8 - 2.4V	65
12	LLR 031UWC	3mm	ROUND	WHITE	WATER CLEAR	4000 - 7000	2200 - 7500k	3.0 - 3.5V	30
13	LLR 031UHWC	3mm	ROUND	WHITE	WATER CLEAR	10000 - 15000	2200 - 7500K	3.0 - 3.5V	20
14	LLR 131UWC	3mm	ROUND	BLUE	WATER CLEAR	3000 - 5000	450 - 470	3.0 - 3.5V	30
15	LLR 231WC	3mm	ROUND	GREEN	WATER CLEAR	400 - 600	565 - 570	1.8 - 2.4V	20
16	LLR 231UWC	3mm	ROUND	GREEN	WATER CLEAR	1000 - 1500	570 - 575	1.8 - 2.4V	20
17	LLR 231UPGWC	3mm	ROUND	GREEN	WATER CLEAR	10000 - 15000	525 - 530	3.0 - 3.5V	20
18	LLR 331WC	3mm	ROUND	YELLOW	WATER CLEAR	600 - 1000	585 - 595	1.8 - 2.4V	20
19	LLR 331UWC	3mm	ROUND	YELLOW	WATER CLEAR	2000 - 2500	585 - 595	1.8 - 2.4V	20
20	LLR 331UHWC	3mm	ROUND	YELLOW	WATER CLEAR	4000 - 6000	585 - 595	1.8 - 2.4V	20
21	LLR 431WC	3mm	ROUND	RED	WATER CLEAR	800 - 1200	620 - 630	1.8 - 2.4V	20
22	LLR 431UWC	3mm	ROUND	RED	WATER CLEAR	2000 - 2500	620 - 630	1.8 - 2.4V	20
23	LLR 431UHWC	3mm	ROUND	RED	WATER CLEAR	4000 - 6000	620 - 630	1.8 - 2.4V	20
24	LLR 731WC	3mm	ROUND	AMBER	WATER CLEAR	600 - 1000	605 - 610	1.8 - 2.4V	20
25	LLR 731UWC	3mm	ROUND	AMBER	WATER CLEAR	1500 - 2000	605 - 610	1.8 - 2.4V	20
26	LLR 141WC	3mm	ROUND	BLUE	COLOUR TRANSPERENT	3000 - 5000	450 - 470	3.0 - 3.5V	30
27	LLR 241WC	3mm	ROUND	GREEN	COLOUR TRANSPERENT	400 - 600	560 - 565	1.8 - 2.4V	25
28	241UWC	3mm	ROUND	GREEN	COLOUR TRANSPERENT	1000 - 1500	570 - 575	1.8 - 2.4V	25
29	LLR 241UPGWC	3mm	ROUND	GREEN	COLOUR TRANSPERENT	10000 - 15000	525 - 530	3.0 - 3.5V	25
30	LLR 341WC	3mm	ROUND	YELLOW	COLOUR TRANSPERENT	600 - 1000	585 - 595	1.8 - 2.4V	20
31	LLR 341UWC	3mm	ROUND	YELLOW	COLOUR TRANSPERENT	2000 - 2500	585 - 595	1.8 - 2.4V	20
32	LLR 341UHWC	3mm	ROUND	YELLOW	COLOUR TRANSPERENT	4000 - 6000	585 - 595	1.8 - 2.4V	20
33	LLR 441WC	3mm	ROUND	RED	COLOUR TRANSPERENT	800 - 1200	620 - 630	1.8 - 2.4V	20
34	LLR 441UWC	3mm	ROUND	RED	COLOUR TRANSPERENT	2000 - 2500	620 - 630	1.8 - 2.4V	20
35	LLR 441UHWC	3mm	ROUND	RED	COLOUR TRANSPERENT	4000 - 6000	620 - 630	1.8 - 2.4V	20
36	LLR 741WC	3mm	ROUND	AMBER	COLOUR TRANSPERENT	600 - 1000	605 - 610	1.8 - 2.4V	20
37	LLR 741UWC	3mm	ROUND	AMBER	COLOUR TRANSPERENT	1500 - 2000	605 - 610	1.8 - 2.4V	20