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ROHM SEMICONDUCTOR

Data Sheet



SLR-343 Series

Features

・Viewing angle 2θ 1/2 : 40˚
・Competent to direct mount

Color Type: V D Y M / P E B WB

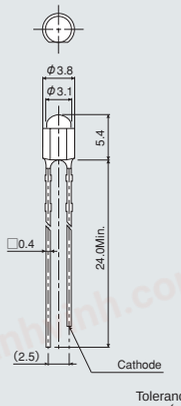
Specifications

Viewing angle 2θ 1/2 / 40˚: Standard

Part No.	Chip Structure	Emitting Color	Absolute Maximum Ratings (Ta=25℃)						Electrical and Optical Characteristics (Ta=25℃)								
			Power Dissipation PD(mW)	Forward Current IF(mA)	Peak Forward Current IFP(mA)	Reverse Voltage VR(V)	Operating Temperature Topr(℃)	Storage Temperature Tstg(℃)	Forward Voltage VF Typ.(V)	VF IF(mA)	Reverse Current IR Max.(μA)	IR VR(V)	Dominant Wavelength λD Typ.(nm)	λD IF(mA)	Luminous Intensity Iv Min.(mcd)	Iv Typ.(mcd)	Iv IF(mA)
SLR-343VR	GaAsP on GaP	Red	60	20	60＊1	3	-25 to +85	-30 to +100	2.0	10	10	3	630	10	5.6	16	10
SLR-343VC															9.0	25	
SLR-343DU		Orange											605		5.6	16	
SLR-343DC															9.0	25	
SLR-343YY		Yellow											587		3.6	10	
SLR-343YC															5.6	16	
SLR-343MG	GaP	Green	75	25					2.1				572				
SLR-343MC															9.0	25	
SLR-343PG													560		2.2	6.3	
SLR-343PC																	
SLR343ECT	InGaN	Bluish Green	120	30	100＊2	5	-20 to +80	-30 to +100	3.3	20	100	5	527	20	900	2200	20
SLR343EC4T									3.2				525		420	1500	
SLR343BCT		Blue	120	30					3.3				470		200	600	
SLR343BC7T			105	25											220	470	
SLR343BC4T			120	30					3.2						200		
SLR343WBC7T		White	105	25									(x, y) (0.31, 0.31)		330	680	

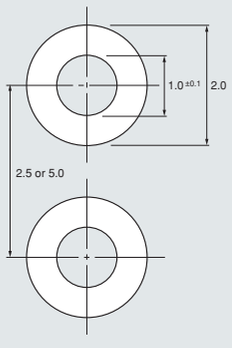
＊1:Duty1/5, 200Hz, ＊2:Duty1/10, 1kHz

Dimensions



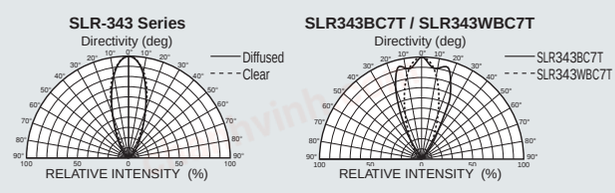
Tolerance : ±0.2
(unit : mm)

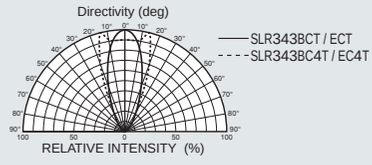
Recommended Solder Pattern



(unit : mm)

Viewing Angle



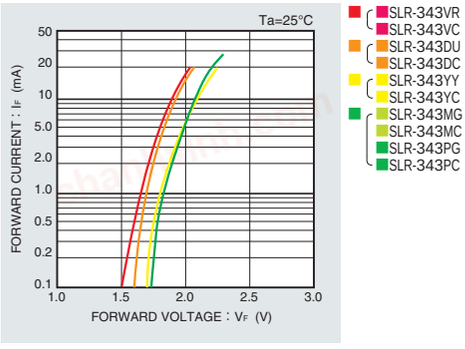


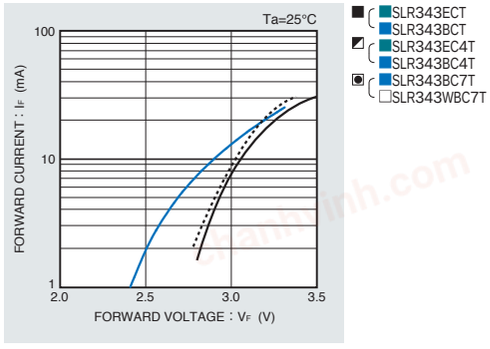
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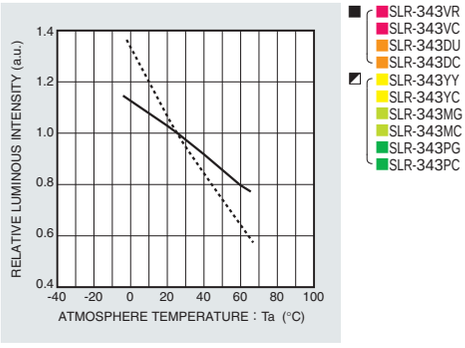
Electrical Characteristics Curves

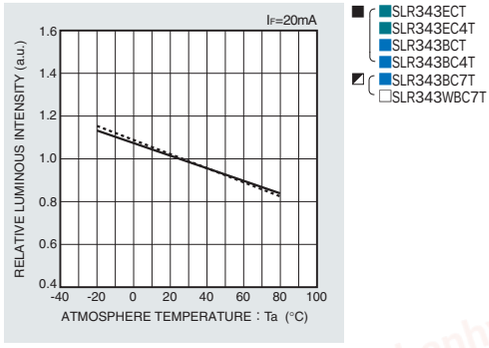
Forward Current-Forward Voltage



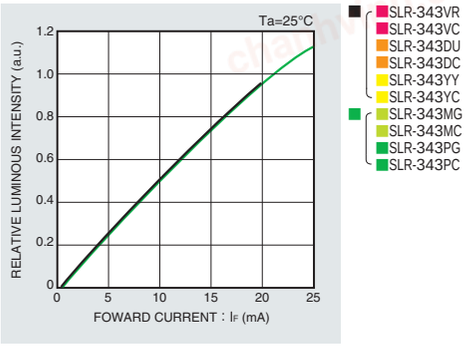


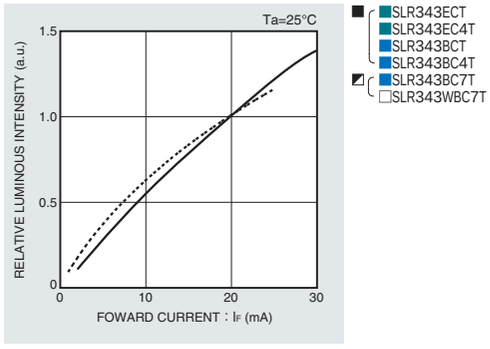
Luminous Intensity-Atmosphere Temperature



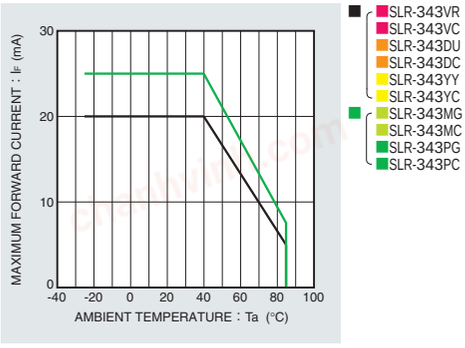


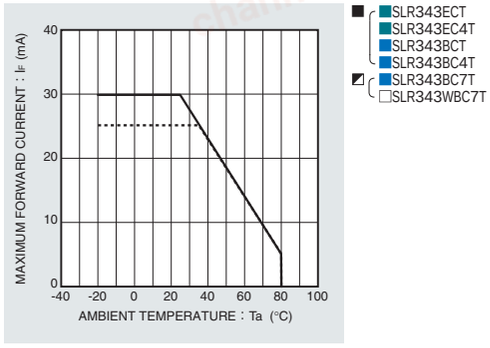
Luminous Intensity-Forward Current





Derating





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SLR-343 Series

Rank Reference of Brightness

Red (V)

(Ta=25°C, IF=10mA)

	Viewing angle (2θ1/2)	Brightness Rank / Brightness (mcd) / Resin Color	E 0.40 to 0.63	F 0.63 to 1.0	G 1.0 to 1.6	H 1.6 to 2.5	J 2.5 to 4.0	K 4.0 to 6.3	L 6.3 to 10	M 10 to 16	N 16 to 25	P 25 to 40	Q 40 to 63	R 63 to 100	S 100 to 160	T 160 to 250	U 250 to 400	V 400 to 630
φ3 Circular type	40°	Transparent Colored								SLR-343VC								
		Diffused Colored							SLR-343VR									

Orange (D)

(Ta=25°C, IF=10mA)

	Viewing angle (2θ1/2)	Brightness Rank / Brightness (mcd) / Resin Color	E 0.40 to 0.63	F 0.63 to 1.0	G 1.0 to 1.6	H 1.6 to 2.5	J 2.5 to 4.0	K 4.0 to 6.3	L 6.3 to 10	M 10 to 16	N 16 to 25	P 25 to 40	Q 40 to 63	R 63 to 100	S 100 to 160	T 160 to 250	U 250 to 400	V 400 to 630
φ3 Circular type	40°	Transparent Colored								SLR-343DC								
		Diffused Colored							SLR-343DU									

Yellow (Y)

(Ta=25°C, IF=10mA)

	Viewing angle (2θ1/2)	Brightness Rank / Brightness (mcd) / Resin Color	E 0.40 to 0.63	F 0.63 to 1.0	G 1.0 to 1.6	H 1.6 to 2.5	J 2.5 to 4.0	K 4.0 to 6.3	L 6.3 to 10	M 10 to 16	N 16 to 25	P 25 to 40	Q 40 to 63	R 63 to 100	S 100 to 160	T 160 to 250	U 250 to 400	V 400 to 630
φ3 Circular type	40°	Transparent Colored							SLR-343YC									
		Diffused Colored						SLR-343YY										

Green (M, P)

(Ta=25°C, IF=10mA)

	Viewing angle (2θ1/2)	Brightness Rank / Brightness (mcd) / Resin Color	E 0.40 to 0.63	F 0.63 to 1.0	G 1.0 to 1.6	H 1.6 to 2.5	J 2.5 to 4.0	K 4.0 to 6.3	L 6.3 to 10	M 10 to 16	N 16 to 25	P 25 to 40	Q 40 to 63	R 63 to 100	S 100 to 160	T 160 to 250	U 250 to 400	V 400 to 630
φ3 Circular type	40°	Transparent Colored								SLR-343MC								
		Diffused Colored							SLR-343MG									
		Diffused Colored					SLR-343PG											
		Transparent Colored					SLR-343PC											

Bluish Green (E)

(Ta=25°C, IF=20mA)

	Viewing angle (2θ1/2)	Brightness Rank / Brightness (mcd) / Resin Color	XH 150 to 220	XJ 220 to 330	XK 330 to 473	XL 470 to 680	XM 680 to 1000	XN 1000 to 1500	XP 1500 to 2200	XQ 2200 to 3300	XR 3300 to 4700	XS 4700 to 6800	XT 6800 to 10000	XU 10000 to 15000
φ3 Circular type	40°	Transparent Colorless				※SLR343EC4T								
								※SLR343ECT						

Blue (B)

(Ta=25°C, IF=20mA)

	Viewing angle (2θ1/2)	Brightness Rank / Brightness (mcd) / Resin Color	XH 150 to 220	XJ 220 to 330	XK 330 to 473	XL 470 to 680	XM 680 to 1000	XN 1000 to 1500	XP 1500 to 2200	XQ 2200 to 3300	XR 3300 to 4700	XS 4700 to 6800	XT 6800 to 10000	XU 10000 to 15000
φ3 Circular type	40°	Transparent Colorless		SLR343BC7T										
				※SLR343BC4T										
				※SLR343BCT										

White (WB)

(Ta=25°C, IF=20mA)

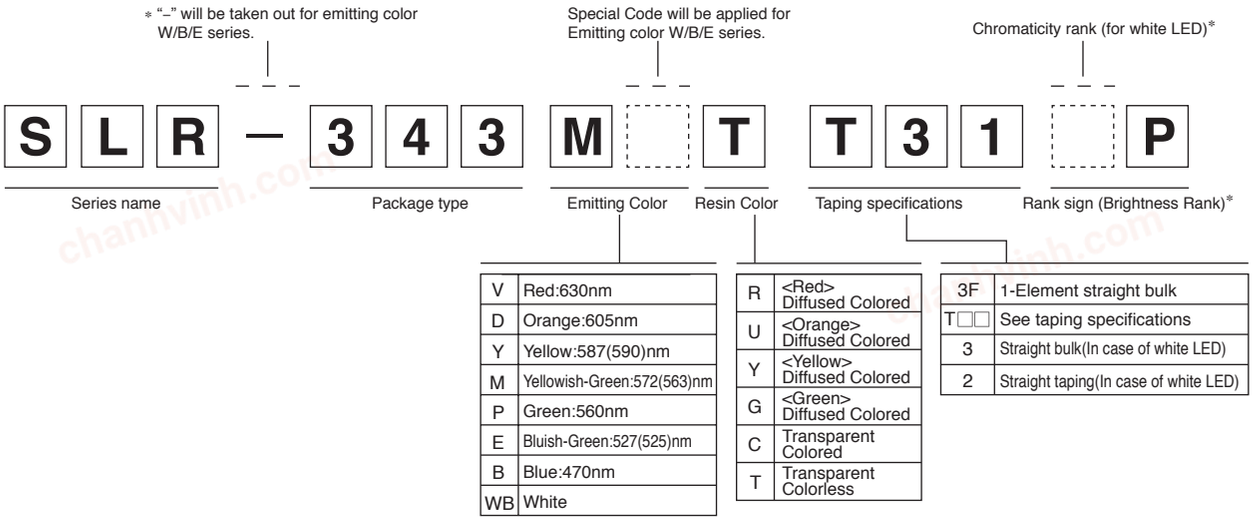
	Viewing angle (2θ1/2)	Brightness Rank / Brightness (mcd) / Resin Color	XJ 220 to 330	XK 330 to 473	XL 470 to 680	XM 680 to 1000	XN 1000 to 1500	XP 1500 to 2200	XQ 2200 to 3300	XR 3300 to 4700	XS 4700 to 6800	XT 6800 to 10000	XU 10000 to 15000
φ3 Circular type	40°	Transparent Colorless		SLR343WBC7T									

※Brightness on specification sheet include tolerance of within ± 10%.

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Part No. Construction



V	Red:630nm
D	Orange:605nm
Y	Yellow:587(590)nm
M	Yellowish-Green:572(563)nm
P	Green:560nm
E	Bluish-Green:527(525)nm
B	Blue:470nm
WB	White

R	<Red> Diffused Colored
U	<Orange> Diffused Colored
Y	<Yellow> Diffused Colored
G	<Green> Diffused Colored
C	Transparent Colored
T	Transparent Colorless

3F	1-Element straight bulk
T□□	See taping specifications
3	Straight bulk(In case of white LED)
2	Straight taping(In case of white LED)

* Concerning the Brightness rank
- Please refer to the rank chart above for luminous intensity classification.
- Part name is individual for each rank.
- When shipped as sample, the part name will be a representative part name.
  General products are free of ranks. Please contact sales if rank appointment is needed.

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Notes

1) The information contained herein is subject to change without notice.

2) Before you use our Products, please contact our sales representative and verify the latest specifications :

3) Although ROHM is continuously working to improve product reliability and quality, semiconductors can break down and malfunction due to various factors.
Therefore, in order to prevent personal injury or fire arising from failure, please take safety measures such as complying with the derating characteristics, implementing redundant and fire prevention designs, and utilizing backups and fail-safe procedures. ROHM shall have no responsibility for any damages arising out of the use of our Poducts beyond the rating specified by ROHM.

4) Examples of application circuits, circuit constants and any other information contained herein are provided only to illustrate the standard usage and operations of the Products. The peripheral conditions must be taken into account when designing circuits for mass production.

5) The technical information specified herein is intended only to show the typical functions of and examples of application circuits for the Products. ROHM does not grant you, explicitly or implicitly, any license to use or exercise intellectual property or other rights held by ROHM or any other parties. ROHM shall have no responsibility whatsoever for any dispute arising out of the use of such technical information.

6) The Products are intended for use in general electronic equipment (i.e. AV/OA devices, communication, consumer systems, gaming/entertainment sets) as well as the applications indicated in this document.

7) The Products specified in this document are not designed to be radiation tolerant.

8) For use of our Products in applications requiring a high degree of reliability (as exemplified below), please contact and consult with a ROHM representative : transportation equipment (i.e. cars, ships, trains), primary communication equipment, traffic lights, fire/crime prevention, safety equipment, medical systems, servers, solar cells, and power transmission systems.

9) Do not use our Products in applications requiring extremely high reliability, such as aerospace equipment, nuclear power control systems, and submarine repeaters.

10) ROHM shall have no responsibility for any damages or injury arising from non-compliance with the recommended usage conditions and specifications contained herein.

11) ROHM has used reasonable care to ensur the accuracy of the information contained in this document. However, ROHM does not warrants that such information is error-free, and ROHM shall have no responsibility for any damages arising from any inaccuracy or misprint of such information.

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ROHM SEMICONDUCTOR

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