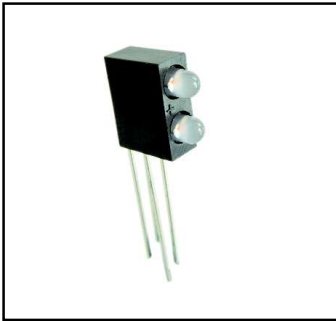


● PCB MOUNTING LEDs - Ø 3mm



109 SERIES

PACK QUANTITY = 250 PIECES

FEATURES

- Saves board space and assembly time
- Material conforms to UL94 V-O flammability ratings
- Low current versions available
- Reverse polarity options available
- Custom built multi-colour permutations
- Product illustrated 109-330-04
- Typically available ex stock

SPECIFICATIONS

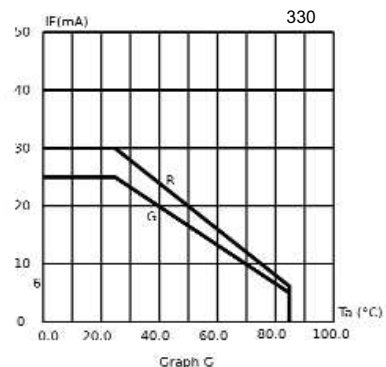
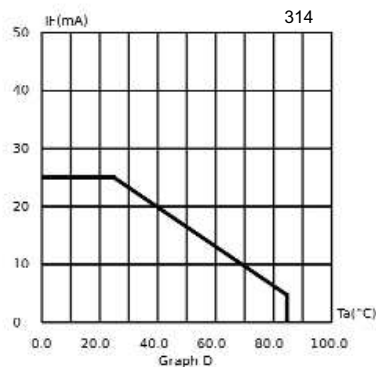
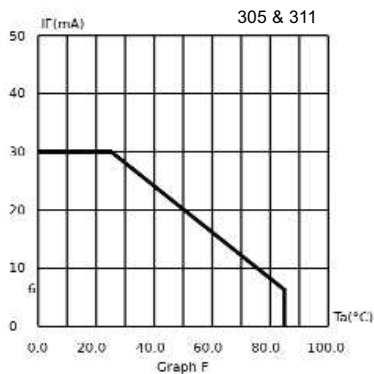
Ordering Information & Typical Technical Characteristics (Ta = 25°C)

Mean Time Between Failure = 100,000 Hours. Luminous intensity figures refer to the unmodified discrete LED.

PART NUMBER	COLOUR	LENS	VOLTAGE DC Vopr	CURRENT DC Iopr	LUMINOUS INTENSITY lv@20mA	WAVE LENGTH λp	OPERATING TEMP Topr	STORAGE TEMP Tstg		
STANDARD INTENSITY										
109-305-04	Red		Colour Diffused	2.0*	20	40	627	-40 ~ +85 [^]	-40 ~ +85	Yes
109-311-04	Yellow		Colour Diffused	2.1*	20	30	590	-40 ~ +85 [^]	-40 ~ +85	Yes
109-314-04	Green		Colour Diffused	2.2*	20	40	565	-40 ~ +85 [^]	-40 ~ +85	Yes
109-330-04	Red/Green		White Diffused	2.0/2.2*	20	20/16	627/565	-40 ~ +85 [^]	-40 ~ +85	Yes
109-381-20	Red		Colour Diffused	5	13	20@13mA	627	-40 ~ +70	-40 ~ +85	Yes
109-382-20	Yellow		Colour Diffused	5	13	15@13mA	590	-40 ~ +70	-40 ~ +85	Yes
109-383-20	Green		Colour Diffused	5	11.5	20@11.5mA	565	-40 ~ +70	-40 ~ +85	Yes
UNITS			Vdc	mA	mcd	nm	°C	°C		



* = Voltage DC for 20mA product is Vf@20mA, not Vopr



[^] = Products must be derated according to the derating information. Each derating graph refers to specific LEDs.

How to Order:

website: www.marl.co.uk • email: sales@marl.co.uk •

• Telephone +44 (0)1229 582430 • Fax: +44 (0)1229 585155

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109 Series

Part numbers also available in the 109 Series:

PART NO.	COLOUR (Vdc) Vopr	VOLTAGE DC
109-000-01-50	Red over Green	2mA
109-000-01-51	Green over Red	2mA
109-000-01-53	Red over Yellow	2mA
109-000-01-54	Green over Yellow	2mA
109-000-01-57	Red over Green	2mA
109-000-01-58	Yellow over Green	2mA
109-000-02-50	Red over Green	10mA
109-000-04-50	Red over Green	20mA
109-000-04-51	Yellow over Red	20mA
109-000-04-52	Green over Yellow	20mA
109-000-04-53	Yellow over Green	20mA
109-000-04-54	Green over Red	20mA
109-000-04-56	Red over Yellow	20mA
109-000-04-57	Yellow over Blue	20mA
109-000-04-58	Yellow over Red/Green	20mA
109-000-04-60	Red over Yellow	20mA
109-000-04-61	Yellow over Blue	20mA
109-000-04-62	Red/Yellow over Green	20mA
109-000-04-63	Red/Green over Blank	20mA
109-000-04-65	Green over Yellow	20mA
109-000-04-66	Green over Yellow	20mA
109-000-13-50	Yellow over Green	20mA RP
109-000-20-50	Yellow over Red	5/6Vdc
109-000-20-51	Green over Red	5/6Vdc
109-000-20-52	Red over Green	5/6Vdc
109-000-20-53	Yellow over Green	5/6Vdc
UNITS		VDC

PART NO.	COLOUR (Vdc) Vopr	VOLTAGE DC
109-301-04	Red	20mA
109-305-01	Red	2mA
109-305-01-24	Red	2mA
109-305-04-24	Red	20mA
109-305-13	Red	20mA RP
109-311-01	Yellow	2mA
109-311-01-24	Yellow	2mA
109-311-04-24	Yellow	20mA
109-314-01	Green	2mA
109-314-01-24	Green	2mA
109-314-01-50	Green	2mA
109-314-01-51	Green	2mA
109-314-04-24	Green	20mA
109-314-04-26	Green	20mA
109-320-04-50	Blue over Blank	20mA
109-330-01	Red/Green	2mA
109-330-01-24	Red/Green	2mA
109-330-04-24	Red/Green	20mA
109-330-13	Red/Green	20mA RP
109-332-04	Grn/Ylw Bi-colour	20mA
109-332-13	Grn/Ylw Bi-colour	20mA RP
UNITS		VDC

The products listed above illustrate all of the options available to order. These products may have custom modifications that alter their operation beyond the generic information contained within this datasheet. Please contact sales for further information.

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