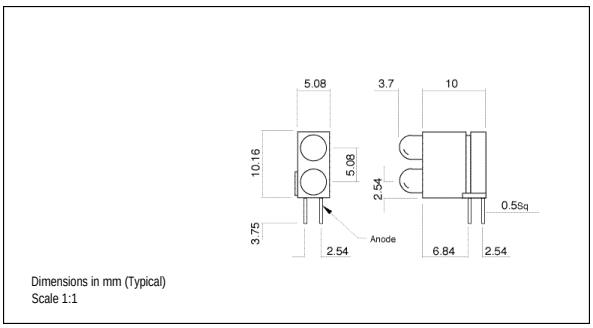
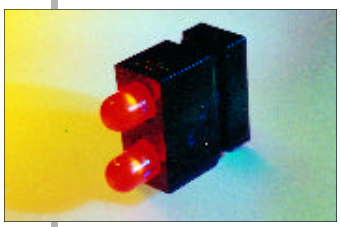
PCB MOUNTING LEDs - Ø 3mm



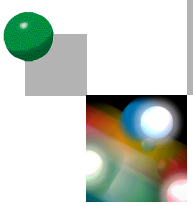
Dimensions in mm (Typical)
Scale 1:1

- Ideal for auto-insertion
- Complements 3 way and 8 way models
- Housing conforms to UL94 V-O flammability ratings
- Reverse polarity options available



1 2 2 SERIES

MLQ = 150



LEDs

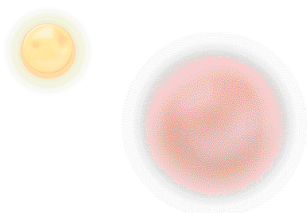
Ordering Information & Typical Technical Characteristics (Ta = 25°C)

Mean Time Between Failure = 100,000 Hours. Low Current Models 250,000 Hours. Luminous intensity figures refer to the unmodified discrete LED.

PART NUMBER	COLOUR	LENS	VOLTAGE DC Vopr	CURRENT DC Iopr	LUMINOUS INTENSITY Iv@20mA	WAVE LENGTH λp	VIEWING ANGLE	OPERATING TEMP Topr	STORAGE TEMP Tstg
STANDARD INTENSITY									
122-305-01	Red	Coloured Diffused	2.0	2	35	625	Wide	-40 ~ +80	-40 ~ +80
122-311-01	Yellow		2.1	2	20	590			
122-314-01	Green		2.2	2	20	565			
122-305-04	Red		2.0*	20	35	625			
122-311-04	Yellow		2.1*	20	20	590			
122-314-04	Green		2.2*	20	20	565			
122-330-04	Red/Green	White Diffused	2.0/2.2*	20	25/25	625/565			
UNITS			**Vdc**	**mA**	**mcd**	**nm**		**°C**	**°C**

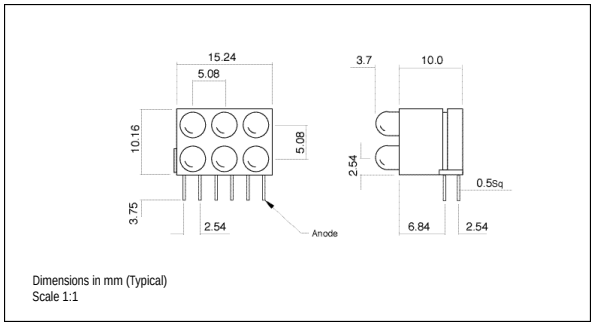
* = Voltage DC for 20mA product is Vf@20mA, not Vopr

Please contact our Sales office for multi-colour array part numbers.



SAMPLES AVAILABLE

PCB MOUNTING LEDs - Ø 3mm



Dimensions in mm (Typical)
Scale 1:1

- Ideal for auto-insertion
- Low current models available
- Reverse polarity options

1 2 3 SERIES

MLQ = 50

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

Mean Time Between Failure = 100,000 Hours. Low Current Models 250,000 Hours. Luminous intensity figures refer to the unmodified discrete LED.

PART NUMBER	COLOUR	LENS	VOLTAGE DC Vopr	CURRENT DC Iopr	LUMINOUS INTENSITY Iv@20mA	WAVE LENGTH λp	VIEWING ANGLE	OPERATING TEMP Topr	STORAGE TEMP Tstg
STANDARD INTENSITY									
123-305-01	Red	Coloured Diffused	2.0	2	35	625	Wide	-40 ~ +80	-40 ~ +80
123-311-01	Yellow		2.1	2	20	590			
123-314-01	Green		2.2	2	20	565			
123-305-04	Red		2.0*	20	35	625			
123-311-04	Yellow		2.1*	20	20	590			
123-314-04	Green		2.2*	20	20	565			
123-330-04	Red/Green	White Diffused	2.0/2.2*	20	25/25	625/565			
UNITS			**Vdc**	**mA**	**mcd**	**nm**		**°C**	**°C**

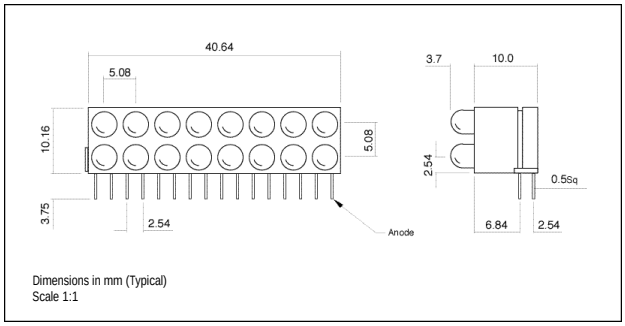
* = Voltage DC for 20mA product is Vf@20mA, not Vopr

Please contact our Sales office for multi-colour array part numbers.

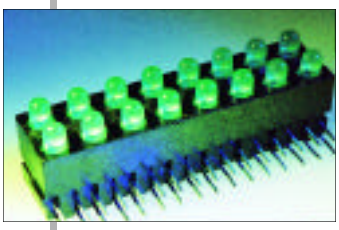
CUSTOM DESIGN SERVICE

Telephone +44 (0)1229 582430 • Fax: +44 (0)1229 585155 • email: sales@marl.co.uk • website: www.marl.co.uk • website: www.marl-leds.com

PCB MOUNTING LEDs - Ø 3mm



- Multi-colour permutations available
- Reverse polarity options



1 2 4 SERIES

MLQ = 20

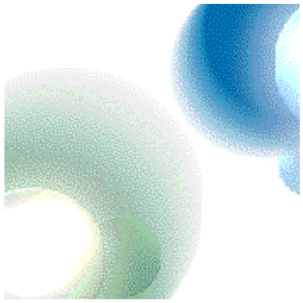
Ordering Information & Typical Technical Characteristics (Ta = 25°C)

Mean Time Between Failure = 100,000 Hours. Low Current Models 250,000 Hours. Luminous intensity figures refer to the unmodified discrete LED.

PART NUMBER	COLOUR	LENS	VOLTAGE DC Vopr	CURRENT DC Iopr	LUMINOUS INTENSITY Iv@20mA	WAVE LENGTH λp	VIEWING ANGLE	OPERATING TEMP Topr	STORAGE TEMP Tstg
STANDARD INTENSITY									
124-305-01	Red	Coloured Diffused	2.0	2	35	625	Wide	-40 ~ +80	-40 ~ +80
124-311-01	Yellow		2.1	2	20	590			
124-314-01	Green		2.2	2	20	565			
124-305-04	Red		2.0*	20	35	625			
124-311-04	Yellow		2.1*	20	20	590			
124-314-04	Green		2.2*	20	20	565			
124-330-04	Red/Green	White Diffused	2.0/2.2*	20	25/25	625/565			
UNITS			**Vdc**	**mA**	**mcd**	**nm**		**°C**	**°C**

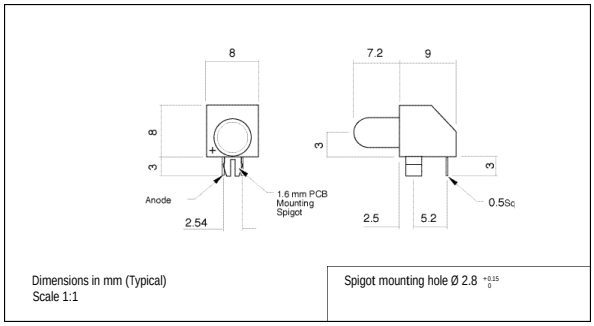
* = Voltage DC for 20mA product is Vf@20mA, not Vopr

Please contact our Sales office for multi-colour array part numbers.



ISO 9001: 1994 APPROVED

PCB MOUNTING LEDs - Ø 5mm



- Secure anchorage to PCB enhances mechanical strength, resistance to vibration and shock
- Suitable for 1.6mm PCB thickness only

125 SERIES

MLQ = 100

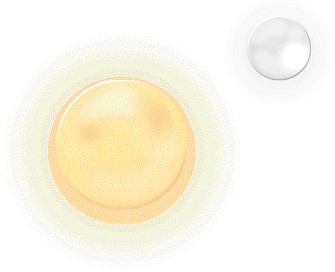
LEDs

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

Mean Time Between Failure = 100,000 Hours. Low Current Models 250,000 Hours. Luminous intensity figures refer to the unmodified discrete LED.

PART NUMBER	COLOUR	LENS	VOLTAGE DC Vopr	CURRENT DC Iopr	LUMINOUS INTENSITY Iv@20mA	WAVE LENGTH λp	VIEWING ANGLE	OPERATING TEMP Topr	STORAGE TEMP Tstg
STANDARD INTENSITY									
125-505-01	Red	Coloured Diffused	2.0	2	80	625	Wide	-40 ~ +80	-40 ~ +80
125-511-01	Yellow		2.1	2	32	590			
125-514-01	Green		2.2	2	32	565			
125-505-04	Red		2.0*	20	80	625			
125-511-04	Yellow		2.1*	20	32	590			
125-514-04	Green		2.2*	20	32	565			
125-530-04	Red/Green	White Diffused	2.0/2.2*	20	30/20	625/565			
UNITS			**Vdc**	**mA**	**mcd**	**nm**		**°C**	**°C**

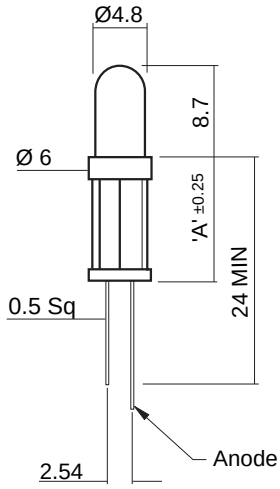
* = Voltage DC for 20mA product is Vf@20mA, not Vopr



ISO 9001: 1994 APPROVED

Product Information

Ø5mm LED Vertical PCB Mounting



Dimensions in mm (typical)

- Variable height options
- Low current available
- MLQ 200
- MTBF 250,000 hrs

Operating temperature range -40 to +85°C
Storage temperature range -50 to +100°C

127 Series

Order code: 127 - 505 - 04 -53

Series Options:	**LED Options: Code - LED Colour / Typical Intensity @ 20mA**	**Voltage Options: Code - Voltage / Current**	**Spacer Lengths: (See Note 1)**
127	**505** - Red 625nm 90mcd **511** - Yellow 590nm 37mcd **514** - Green 565nm 37mcd	**04** - 20mA DC	**53** - 9.5mm **54** - 12.7mm **55** - 15.9mm **56** - 19.1mm

Note 1:

Marl offer four standard spacer lengths (Dimension 'A') by adding one of the following codes to the end of the part number:

-53, Dimension 'A' = 9.5mm;
-54, Dimension 'A' = 12.7mm;
-55, Dimension 'A' = 15.9mm;
-56, Dimension 'A' = 19.1mm.

Material Specification:

Housing - Nylon 66.
This material exhibits versatile electrical and mechanical properties making it well suited for a wide range of environments. UL94 V-O rated.

Marl International Limited
Ulverston
Cumbria
LA12 7RY
England

Tel: 01229 582430 Fax: 01229 585155
International Tel: +44 1229 582430
International Fax: +44 1229 585155
EMAIL: marl@compuserve.com

Opto-Electronic Design and Manufacture

The Company's services are recognised to the International Quality Standard BS EN ISO9001:1994