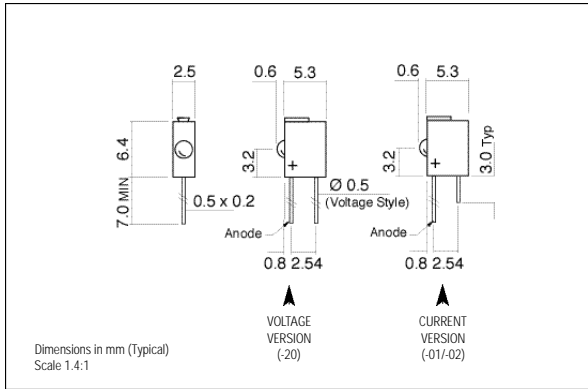
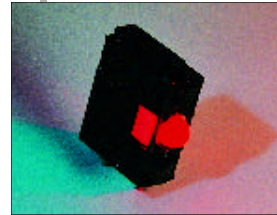


● PCB MOUNTING LEDs - Ø 2mm



- Side stackable on 2.54mm centres
- Industry standard device
- Sub-miniature size saves space
- Reverse polarity options available



101 SERIES

MLQ = 250

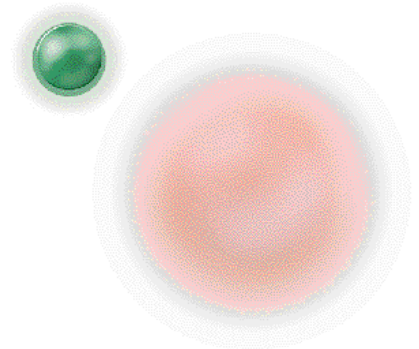


Ordering Information & Typical Technical Characteristics (Ta = 25°C)

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

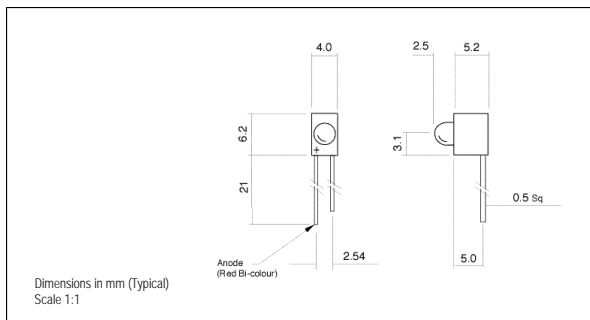
PART NUMBER	COLOUR	LENS	VOLTAGE DC Vopr	CURRENT DC Iopr	LUMINOUS INTENSITY Iv@10mA	WAVE LENGTH p	VIEWING ANGLE	OPERATING TEMP Topr	STORAGE TEMP Tstg
STANDARD INTENSITY									
101-205-01	Red	Coloured Diffused	1.8	2	10	635	Wide	-40 ~ +80	-40 ~ +80
101-211-01	Yellow		2.0	2	9	583			
101-214-01	Green		2.1	2	7	565			
101-205-02	Red		1.8	10	10	635			
101-211-02	Yellow		2.0	10	9	583			
101-214-02	Green		2.1	10	7	565			
101-205-20	Red		5	10	10	635			
101-211-20	Yellow		5	10	9	583			
101-214-20	Green		5	10	7	565			
UNITS			Vdc	mA	mcd	nm		°C	°C

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● SAMPLES AVAILABLE

PCB MOUNTING LEDs - Ø 3mm



- Industry standard device
- Low current versions included
- Other Bi-colour options available
- Reverse polarity options



103 SERIES

MLQ = 250



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.

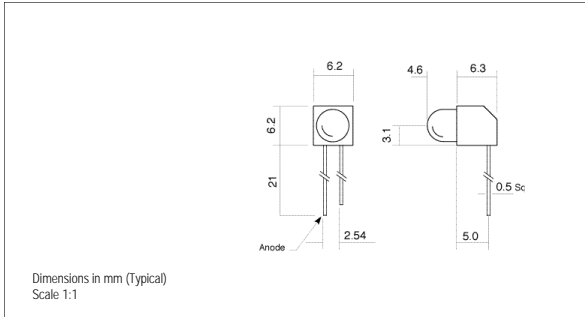
PART NUMBER	COLOUR	LENS	VOLTAGE DC Vopr	CURRENT DC Iopr	LUMINOUS INTENSITY lv@20mA	WAVE LENGTH p	VIEWING ANGLE	OPERATING TEMP Topr	STORAGE TEMP Tstg
STANDARD INTENSITY									
103-305-01	Red	Coloured Diffused	2.0	2	35	625	Wide	-40 ~ +80	-40 ~ +80
103-311-01	Yellow		2.1	2	20	590			
103-314-01	Green		2.2	2	20	565			
103-305-04	Red		2.0*	20	35	625			
103-311-04	Yellow		2.1*	20	20	590			
103-314-04	Green		2.2*	20	20	565			
103-330-04	Red/Green	White Diffused	2.0/2.2*	20	25/25	625/565			
103-381-20	Red	Coloured Diffused	5	10	35@10mA	625			
103-382-20	Yellow		5	10	20@10mA	590			
103-383-20	Green		5	10	20@10mA	565			
UNITS			Vdc	mA	mcd	nm		°C	°C

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

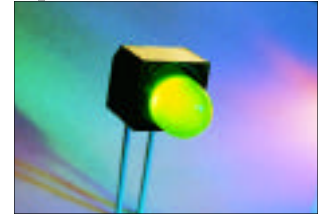


LEAD CROPPING OPTION, SEE PAGE 23

● PCB MOUNTING LEDs - Ø 5mm



- Other Bi-colour options available
- Low current and 5 Vdc versions
- Reverse polarity options



104 SERIES

MLQ = 250

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.

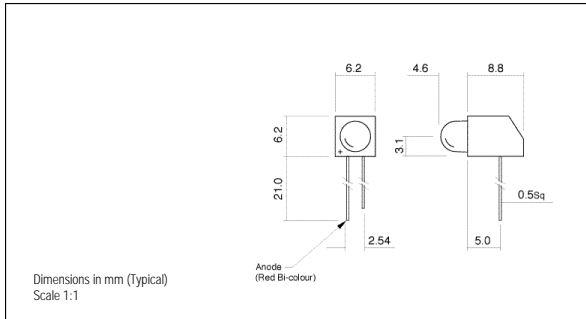
PART NUMBER	COLOUR	LENS	VOLTAGE DC Vopr	CURRENT DC Iopr	LUMINOUS INTENSITY Iv@20mA	WAVE LENGTH p	VIEWING ANGLE	OPERATING TEMP Topr	STORAGE TEMP Tstg
STANDARD INTENSITY									
104-505-01	Red	Coloured Diffused	2.0	2	15	625	Wide	-40 ~ +80	-40 ~ +80
104-511-01	Yellow		2.1	2	20	590			
104-514-01	Green		2.2	2	20	565			
104-505-04	Red		2.0*	20	15	625			
104-511-04	Yellow		2.1*	20	20	590			
104-514-04	Green		2.2*	20	20	565			
104-530-04	Red/Green	White Diffused	2.0/2.2*	20	30/20	625/525			
104-581-20	Red	Coloured Diffused	5	10	40@10mA	625			
104-582-20	Yellow		5	10	25@10mA	590			
104-583-20	Green		5	10	25@10mA	565			
UNITS			Vdc	mA	mcd	nm		°C	°C

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



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● LED PRODUCTS CAN BE STATIC SENSITIVE



● PCB MOUNTING LEDs - Ø 5mm

- Extra-firm anchorage on PCB
- Customised lead lengths available
- Reverse polarity options



106 SERIES

MLQ = 250



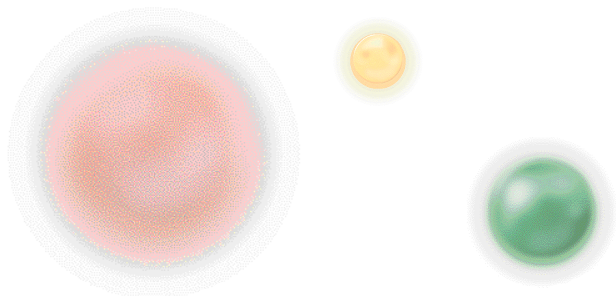
Ordering Information & Typical Technical Characteristics (Ta = 25°C)

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 p	VIEWING ANGLE	OPERATING TEMP Topr	STORAGE TEMP Tstg
STANDARD INTENSITY									
106-505-01	Red	Coloured Diffused	2.0	2	15	625	Wide	-40 ~ +80	-40 ~ +80
106-511-01	Yellow		2.1	2	20	590			
106-514-01	Green		2.2	2	20	565			
106-505-04	Red		2.0*	20	15	625			
106-511-04	Yellow		2.1*	20	20	590			
106-514-04	Green		2.2*	20	20	565			
106-530-04	Red/Green	White Diffused	2.0/2.2*	20	30/20	625/565			
106-581-20	Red	Coloured Diffused	5	10	40@10mA	625			
106-582-20	Yellow		5	10	25@10mA	590			
106-583-20	Green		5	10	25@10mA	565			
UNITS			Vdc	mA	mcd	nm		°C	°C

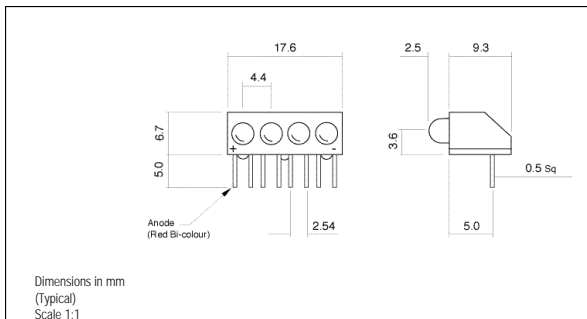
* = Voltage DC for 20mA product is Vf@20mA, not Vopr

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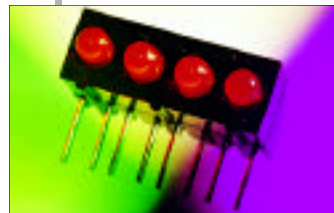


● SAMPLES AVAILABLE

● PCB MOUNTING LEDs - Ø 3mm



- Multi-colour permutations available
- Suitable for flow soldering assembly
- Reverse polarity options



107 SERIES

MLQ = 100



LEDs

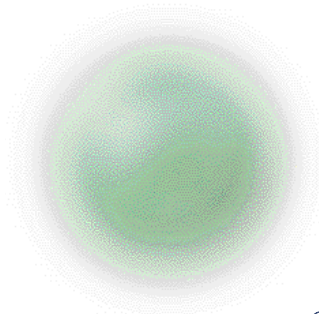
Ordering Information & Typical Technical Characteristics (Ta = 25°C)

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 lv@20mA	WAVE LENGTH p	VIEWING ANGLE	OPERATING TEMP Topr	STORAGE TEMP Tstg
STANDARD INTENSITY									
107-305-01	Red	Coloured Diffused	2.0	2	35	625	Wide	-40 ~ +80	-40 ~ +80
107-311-01	Yellow		2.1	2	20	590			
107-314-01	Green		2.2	2	20	565			
107-305-04	Red		2.0*	20	35	625			
107-311-04	Yellow		2.1*	20	20	590			
107-314-04	Green		2.2*	20	20	565			
107-330-04	Red/Green	White Diffused	2.0/2.2*	20	25/25	625/565			
107-381-20	Red	Coloured Diffused	5	10	35@10mA	625			
107-382-20	Yellow		5	10	20@10mA	590			
107-383-20	Green		5	10	20@10mA	565			
UNITS			Vdc	mA	mcd	nm		°C	°C

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

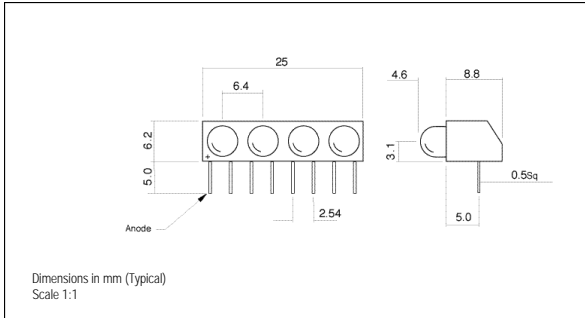
Please contact our Sales office for multi-colour array part numbers.



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● ISO 9001: 1994 APPROVED

● PCB MOUNTING LEDs - Ø 5mm



- Ideal for status indication, mounted on edge of card
- Multi-colour permutations available
- Reverse polarity options



108 SERIES

MLQ = 100



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 p	VIEWING ANGLE	OPERATING TEMP Topr	STORAGE TEMP Tstg
STANDARD INTENSITY									
108-505-01	Red	Coloured Diffused	2.0	2	15	625	Wide	-40 ~ +80	-40 ~ +80
108-511-01	Yellow		2.1	2	20	590			
108-514-01	Green		2.2	2	20	565			
108-505-04	Red		2.0*	20	15	625			
108-511-04	Yellow		2.1*	20	20	590			
108-514-04	Green		2.2*	20	20	565			
108-530-04	Red/Green	White Diffused	2.0/2.2*	20	30/20	625/565			
108-581-20	Red	Coloured Diffused	5	10	40@10mA	625			
108-582-20	Yellow		5	10	25@10mA	590			
108-583-20	Green		5	10	25@10mA	565			
UNITS			Vdc	mA	mcd	nm		°C	°C

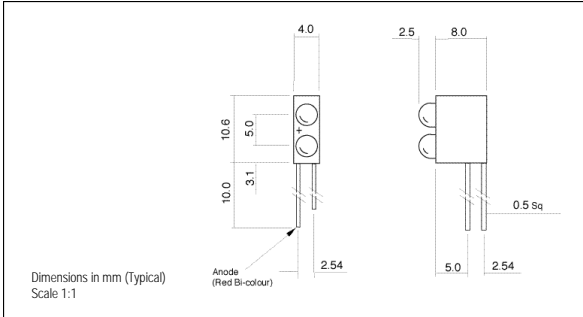
* = Voltage DC for 20mA product is Vf@20mA, not Vopr

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



● CUSTOM DESIGN SERVICE

● PCB MOUNTING LEDs - Ø 3mm



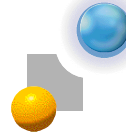
- Save board space and assembly time
- Low current versions available
- Custom built multi-colour permutations
- Reverse polarity options



109 SERIES

MLQ = 250

LEDs



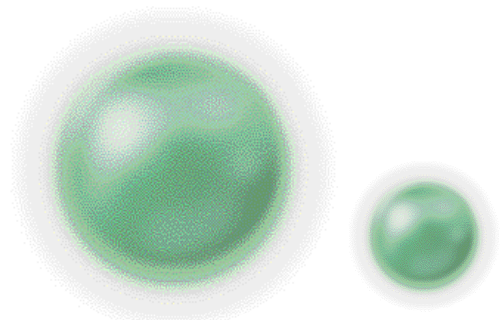
Ordering Information & Typical Technical Characteristics (Ta = 25°C)

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

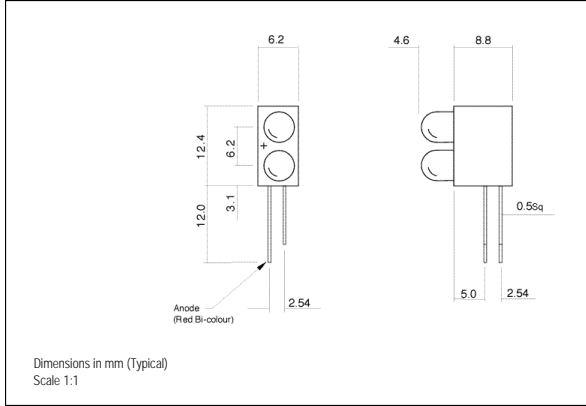
PART NUMBER	COLOUR	LENS	VOLTAGE DC Vopr	CURRENT DC Iopr	LUMINOUS INTENSITY Iv@20mA	WAVE LENGTH p	VIEWING ANGLE	OPERATING TEMP Topr	STORAGE TEMP Tstg
STANDARD INTENSITY									
109-305-01	Red	Coloured Diffused	2.0	2	35	625	Wide	-40 ~ +80	-40 ~ +80
109-311-01	Yellow		2.1	2	20	590			
109-314-01	Green		2.2	2	20	565			
109-305-04	Red	2.0*	20	35	625				
109-311-04	Yellow	2.1*	20	20	590				
109-314-04	Green	2.2*	20	20	565				
109-330-04	Red/Green	White Diffused	2.0/2.2*	20	25/25	625/565			
109-381-20	Red	Coloured Diffused	5	10	35@10mA	625			
109-382-20	Yellow		5	10	20@10mA	590			
109-383-20	Green		5	10	20@10mA	565			
UNITS			Vdc	mA	mcd	nm		°C	°C

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

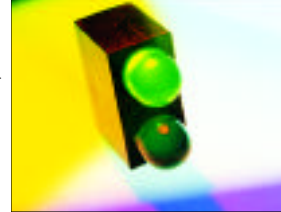
● FOR NEW PRODUCTS SEE OUR WEBSITE



● PCB MOUNTING LEDs - Ø 5mm

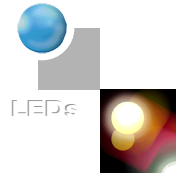


- Bi-colour and resistor models enhance potential for saving assembly time and board space
- Reverse polarity options available



110 SERIES

MLQ = 250



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 p	VIEWING ANGLE	OPERATING TEMP Topr	STORAGE TEMP Tstg
STANDARD INTENSITY									
110-505-01	Red	Coloured Diffused	2.0	2	15	625	Wide	-40 ~ +80	-40 ~ +80
110-511-01	Yellow		2.1	2	20	590			
110-514-01	Green		2.2	2	20	565			
110-505-04	Red		2.0*	20	15	625			
110-511-04	Yellow		2.1*	20	20	590			
110-514-04	Green		2.2*	20	20	565			
110-530-04	Red/Green	White Diffused	2.0/2.2*	20	30/20	625/525			
110-581-20	Red	Coloured Diffused	5	10	40@10mA	625			
110-582-20	Yellow		5	10	25@10mA	590			
110-583-20	Green		5	10	25@10mA	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.



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● LEAD CROPPING OPTION, SEE PAGE 23