

$\lambda = 638 \text{ nm}$, $P = 40 \text{ mW}$, Single Mode Thorlabs L638P040

Maximum Ratings ($T_C = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	MAX RATING
Optical Output Power (CW)	P_o	45 mW*
LD Reverse Voltage	$V_{R(LD)}$	2 V
PD Reverse Voltage	$V_{R(PD)}$	30 V
Operation Case Temperature	T_{op}	-10 to 50 °C
Storage Temperature	T_{stg}	-40 to 85 °C

*40 mW Typical

Characteristics ($T_C = 25^\circ\text{C}$, $P = 40 \text{ mW}$)

CHARACTERISTIC	SYMBOL	MIN	TYP.	MAX
Lasing Wavelength	λ_p	628 nm	638 nm	648 nm
Threshold Current	I_{th}	–	45 mA	65 mA
Operating Current	I_{op}	–	92 mA	115 mA
Operating Voltage	V_{op}	–	2.4 V	2.6 V
Beam Divergence (FWHM)	$\theta_{//}$	8°	10°	14°
	θ_{\perp}	16°	21°	25°
Slope Efficiency	η_s	0.4 mW/mA	0.5 mW/mA	0.7 mW/mA
Monitor Current	I_m	–	0.3 mA	0.6 mA

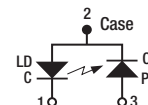
Note: All data are presented as typical unless otherwise specified.



Pin Description

- 1 laser cathode
- 2 common case
- 3 monitor diode anode

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PIN CODE A

- Ø5.6 mm Package
- 40 mW (Typical) Optical Output Power (CW)
- 0.5 mW/mA (Typical) Slope Efficiency
- 15 μm (Max) Astigmatism

ITEM #	£* 1-5 PCS	€* 1-5 PCS	RMB* 1-5 PCS
L638P040	£ 220.53	€ 266.47	¥ 2,441.06

*For quantities over 5 pieces, please call our local office for pricing.

ITEM #	PRICE 1-5 PCS	PRICE 6-10 PCS	PRICE 11-20 PCS	DESCRIPTION
L638P040	\$ 306.28	\$ 294.03	\$ 284.84	Thorlabs 638 nm, 40 mW

$\lambda = 638 \text{ nm}$, $P = 110 \text{ mW}$, Single Mode Mitsubishi ML520G54

Maximum Ratings ($T_C = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	MAX RATING
Optical Output Power (CW)	P_o	110 mW
LD Reverse Voltage	$V_{R(LD)}$	2 V
PD Reverse Voltage	$V_{R(PD)}$	–
Operation Case Temperature	T_{op}	-5 to 60 °C
Storage Temperature	T_{stg}	-40 to 100 °C

Characteristics ($T_C = 25^\circ\text{C}$, $P = 110 \text{ mW}$)

CHARACTERISTIC	SYMBOL	MIN	TYP.	MAX
Lasing Wavelength	λ_p	632 nm	638 nm	644 nm
Threshold Current	I_{th}	35 mA	50 mA	65 mA
Operating Current	I_{op}	100 mA	150 mA	200 mA
Operating Voltage	V_{op}	2.4 V	2.7 V	3.0 V
Beam Divergence (FWHM)	$\theta_{//}$	5°	9°	13°
	θ_{\perp}	14°	19°	24°
Slope Efficiency	η_s	0.8 mW/mA	1.1 mW/mA	1.3 mW/mA

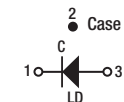
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Pin Description

- 1 laser cathode
- 2 case
- 3 monitor diode anode

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PIN CODE G

- Ø5.6 mm Package
- 110 mW (Typical) Output Power (CW)
- 1.1 mW/mA (Typical) Slope Efficiency

ITEM #	£* 1-5 PCS	€* 1-5 PCS	RMB* 1-5 PCS
ML520G54	£ 252.00	€ 304.50	¥ 2,789.50

*For quantities over 5 pieces, please call our local office for pricing.

ITEM #	PRICE 1-5 PCS	PRICE 6-10 PCS	PRICE 11-20 PCS	DESCRIPTION
ML520G54	\$ 350.00	\$ 339.50	\$ 332.50	Mitsubishi 638 nm, 110 mW

$\lambda = 639 \text{ nm}$, $P = 10 \text{ mW}$, Single Mode Opnext HL6358MG

Maximum Ratings ($T_C = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	MAX RATING
Optical Output Power (CW)	P_o	12 mW*
LD Reverse Voltage	$V_{R(LD)}$	2 V
PD Reverse Voltage	$V_{R(PD)}$	30 V
Operation Case Temperature	T_c	-10 to 50 °C
Storage Temperature	T_{stg}	-40 to 85 °C

*10 mW Typical

Characteristics ($T_C = 25^\circ\text{C}$, $P = 10 \text{ mW}$)

CHARACTERISTIC	SYMBOL	MIN	TYP.	MAX
Lasing Wavelength	λ_p	630 nm	639 nm	643 nm
Threshold Current	I_{th}	–	30 mA	35 mA
Operating Current	I_{op}	–	40 mA	50 mA
Operating Voltage	V_{op}	–	2.3 V	2.5 V
Beam Divergence (FWHM)	$\theta_{//}$	6°	8°	11°
	θ_{\perp}	16°	21°	24°
Monitor Current	I_m	0.5 mA	1.0 mA	2.0 mA

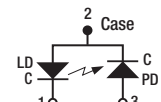
Note: All data are presented as typical unless otherwise specified.



Pin Description

- 1 laser cathode
- 2 common case
- 3 monitor diode anode

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product



PIN CODE A

- Ø5.6 mm Package
- 639 nm (Typical) Wavelength
- 10 mW (Typical) Output Power (CW)
- 30 mA (Typical) Threshold Current

ITEM #	£* 1-5 PCS	€* 1-5 PCS	RMB* 1-5 PCS
HL6358MG	£ 11.98	€ 14.47	¥ 132.55

*For quantities over 5 pieces, please call our local office for pricing.

ITEM #	PRICE 1-5 PCS	PRICE 6-10 PCS	PRICE 11-20 PCS	DESCRIPTION
HL6358MG	\$ 16.63	\$ 16.13	\$ 15.80	Opnext 639 nm, 10 mW