

LT-1020

SINGLE EMITTER DIODE

Lasertel's single emitter diodes are used worldwide in industrial, defense, medical research, digital imaging and other applications where quality, reliability, and flexibility are imperative.

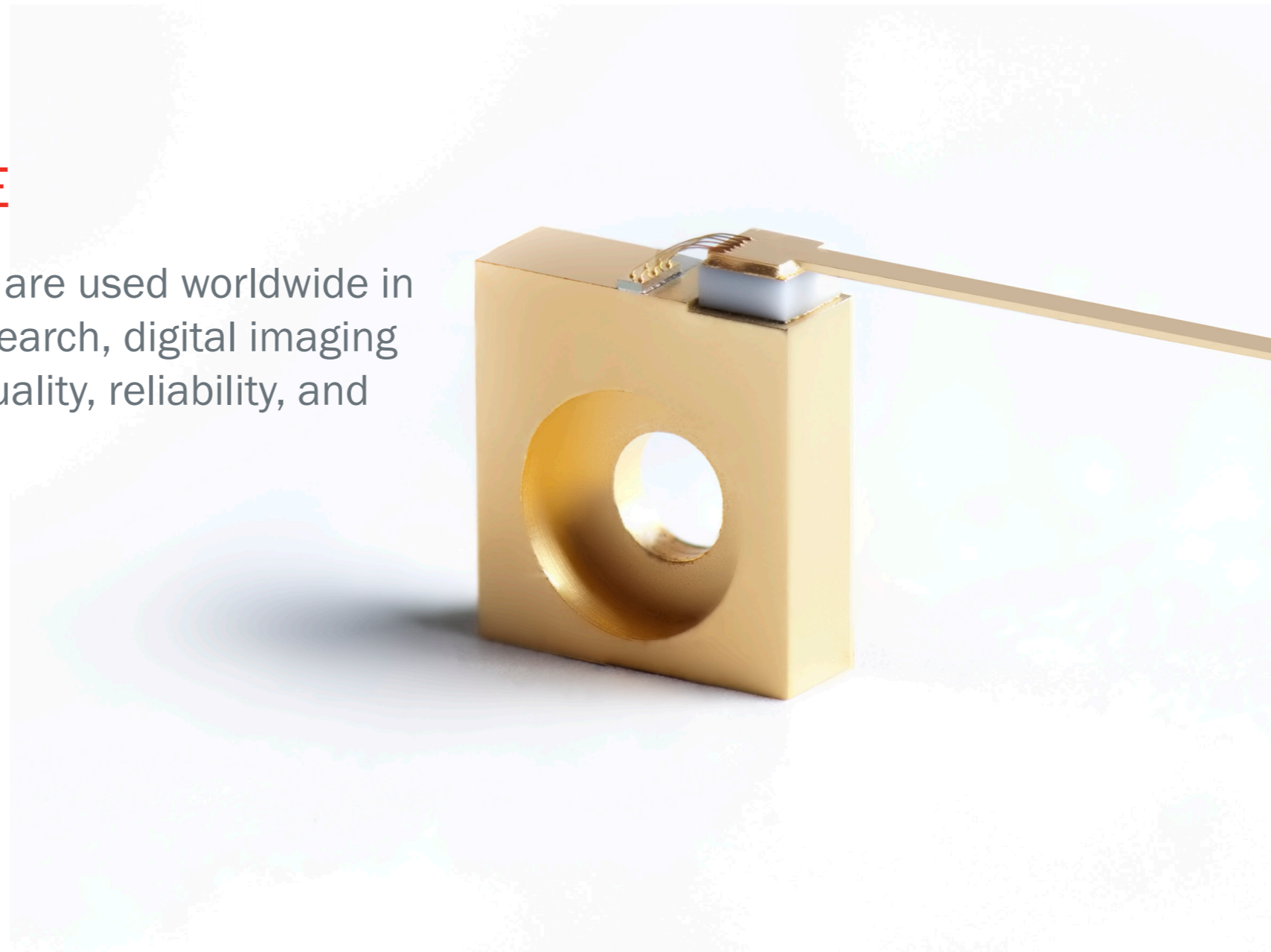
WAVELENGTHS:

✦ 808

✦ 830

✦ 940

✦ 976



LT-1020 SINGLE EMITTER DIODE

WAVELENGTH: 808

TYPICAL OPTICAL PARAMETERS (@25°C)	UNITS	VALUE								
Output Power	W	0.5	1	1.5	2	3	4	5	6	8
Operation Mode		CW	CW	CW	CW	CW	CW	CW	CW	CW
Spectral Width	nm	2	2	2.5	2.5	2.5	3	3	3.5	3.5
Emitter Width	µm	50	50	100	100	100	200	200	200	200
Beam Divergence										
Fast Axis (FWHM)	°	32	32	32	32	32	32	32	32	32
Slow Axis (FWHM)	°	6	6	8	8	8	9	9	10	10
TYPICAL ELECTRICAL PARAMETERS (@25°C)										
Power Conversion Efficiency	%	55	55	50	50	50	50	50	45	45
Threshold Current	A	0.1	0.15	0.4	0.5	0.5	0.7	0.7	0.7	.07
Operating Current	A	0.5	1.1	1.7	2.2	3.2	4.1	5.2	6.2	8.5
Operating Voltage	V	1.8	1.8	1.8	1.85	1.85	1.9	1.9	2	2
THERMAL PARAMETERS										
Operating Temperature	°C	-30 to 70	-30 to 70	-30 to 70	-30 to 70	-30 to 70	-30 to 70	-30 to 70	-30 to 70	-30 to 70
Storage Temperature	°C	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85

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WAVELENGTH: 830

TYPICAL OPTICAL PARAMETERS (@25°C)	UNITS	VALUE								
Output Power	W	0.5	1	1.5	2	3	4	5	6	8
Operation Mode		CW	CW	CW	CW	CW	CW	CW	CW	CW
Spectral Width	nm	2	2	2.5	2.5	2.5	3	3	3.5	3.5
Emitter Width	µm	50	50	100	100	100	200	200	200	200
Beam Divergence										
Fast Axis (FWHM)	°	32	32	32	32	32	32	32	32	32
Slow Axis (FWHM)	°	6	6	8	8	8	9	9	10	10
TYPICAL ELECTRICAL PARAMETERS (@25°C)										
Power Conversion Efficiency	%	55	55	50	50	50	50	50	45	45
Threshold Current	A	0.1	0.15	0.4	0.5	0.5	0.7	0.7	0.7	.07
Operating Current	A	0.5	1.1	1.7	2.2	3.2	4.1	5.2	6.2	8.5
Operating Voltage	V	1.8	1.8	1.8	1.85	1.85	1.9	1.9	2	2
THERMAL PARAMETERS										
Operating Temperature	°C	-30 to 70	-30 to 70	-30 to 70	-30 to 70	-30 to 70	-30 to 70	-30 to 70	-30 to 70	-30 to 70
Storage Temperature	°C	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85

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WAVELENGTH: 940

TYPICAL OPTICAL PARAMETERS (@25°C)	UNITS	VALUE						
Output Power	W	0.5	1	1.5	2	3	4	5
Operation Mode		CW	CW	CW	CW	CW	CW	CW
Spectral Width	nm	2	2	2.1	2.5	2.5	2.5	3
Emitter Width	µm	50	50	100	100	100	200	200
Beam Divergence								
Fast Axis (FWHM)	°	32	32	32	32	32	32	32
Slow Axis (FWHM)	°	6	6	6	8	8	9	9
TYPICAL ELECTRICAL PARAMETERS (@25°C)								
Power Conversion Efficiency	%	45	45	45	45	45	40	40
Threshold Current	A	0.1	0.15	0.5	0.5	0.5	0.7	0.7
Operating Current	A	0.6	1.2	2	2.6	3.5	5	6
Operating Voltage	V	1.8	1.8	1.8	1.85	1.85	1.9	1.9
THERMAL PARAMETERS								
Operating Temperature	°C	-30 to 70	-30 to 70	-30 to 70	-30 to 70	-30 to 70	-30 to 70	-30 to 70
Storage Temperature	°C	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85

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WAVELENGTH: 976

TYPICAL OPTICAL PARAMETERS (@25°C)	UNITS	VALUE						
Output Power	W	0.5	1	1.5	2	3	4	5
Operation Mode		CW	CW	CW	CW	CW	CW	CW
Spectral Width	nm	2	2	2.1	2.5	2.5	2.5	3
Emitter Width	µm	50	50	100	100	100	200	200
Beam Divergence								
Fast Axis (FWHM)	°	32	32	32	32	32	32	32
Slow Axis (FWHM)	°	6	6	6	8	8	9	9
TYPICAL ELECTRICAL PARAMETERS (@25°C)								
Power Conversion Efficiency	%	45	45	45	45	45	40	40
Threshold Current	A	0.1	0.15	0.5	0.5	0.5	0.7	0.7
Operating Current	A	0.6	1.2	2	2.6	3.5	5	6
Operating Voltage	V	1.8	1.8	1.8	1.85	1.85	1.9	1.9
THERMAL PARAMETERS								
Operating Temperature	°C	-30 to 70	-30 to 70	-30 to 70	-30 to 70	-30 to 70	-30 to 70	-30 to 70
Storage Temperature	°C	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85

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TECHNICAL DRAWING

DIMENSIONS IN MM

