

UNCONTROLLED DOCUMENT

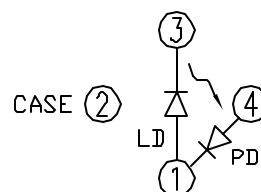
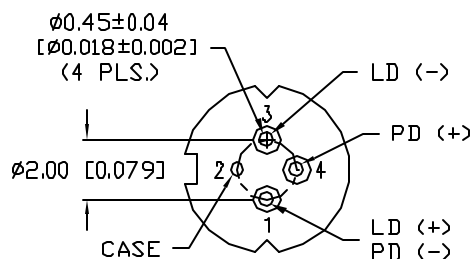
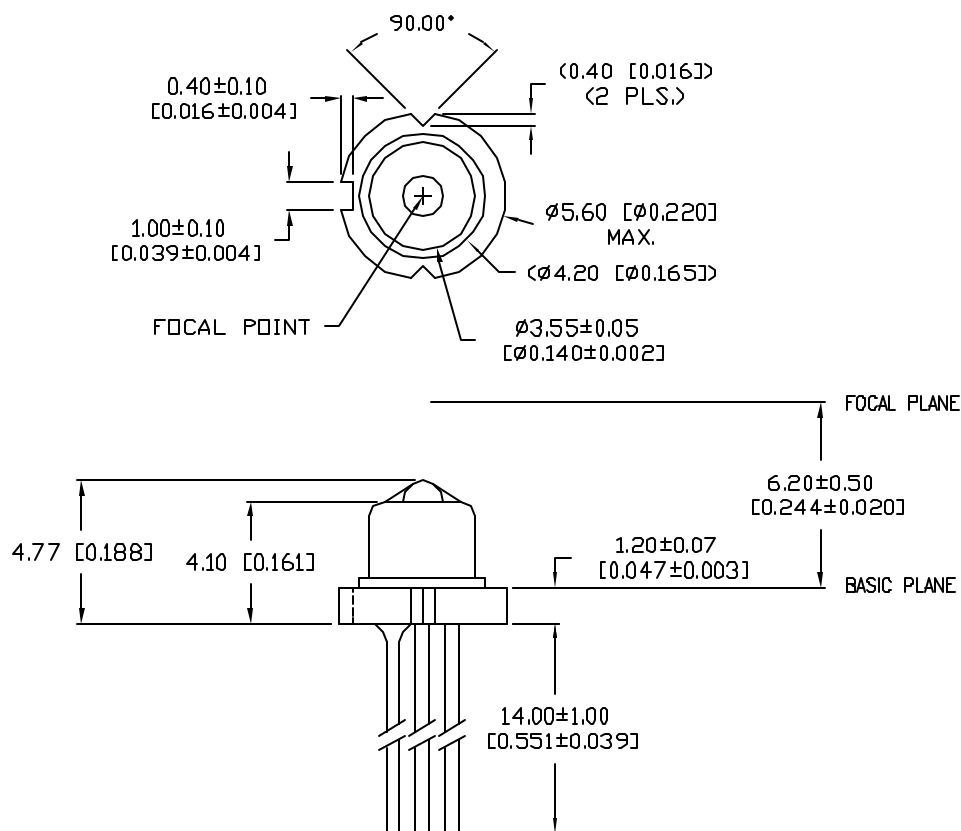
SC:0.25

PART NUMBER

REV.

OED-LDC13001EBD

PRELIMINARY IN P/N DIR



WARNING
INVISIBLE LASER RADIATION,
AVOID DIRECT EXPOSURE TO BEAM.

CAUTION: STATIC SENSITIVE DEVICE
FOLLOW PROPER E.S.D. HANDLING PROCEDURES
WHEN WORKING WITH THIS PART.

ELECTRO-OPTICAL CHARACTERISTICS (T_c=25°C), P_o=5mW

PARAMETER	SYMBOL	MIN	TYP	MAX	TEST COND	UNITS
LASING WAVELENGTH	λ	1290	1310	1330	CW	nm
SPECTRAL WIDTH	$\Delta\lambda$		2	5	CW	nm
FORWARD VOLTAGE	V _f		1.2	1.5	CW	V
THRESHOLD CURRENT	I _{th}		12	20		mA
PD MONITOR CURRENT	I _m	100			CW, V _{R(PD)} =2V	μA
PD DARK CURRENT	I _(DARK)			0.1	V _{R(PD)} =5V	μA
PD CAPACITANCE	C _t		6	15	V _{R(PD)} =5V, f=1MHz	pF
RISE TIME	T _r			0.5	CW, I _{bias} =I _{th}	ns
FALL TIME	T _f			0.5	10-90%	ns
SLOPE EFFICIENCY		0.2	0.3			mW/mA
BEAM DIVERGENCE	θ		20		CW	deg.
	θ_L		40		FWHM	deg.

ABSOLUTE MAXIMUM RATINGS (T_c=25°C)

PARAMETER	SYMBOL	MAX	UNITS
OPTICAL POWER	P _o	10(CW)	mW
LD REVERSE VOLTAGE	V _{R(LD)}	2	V
PD REVERSE VOLTAGE	V _{R(PD)}	15	V
PD FORWARD CURRENT	I _{F(PD)}	1.0	mA
OPERATING TEMP.	T _{op}	-40 TO +85	°C
STORAGE TEMP.	T _{stg}	-40 TO +85	°C

*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), XX=±0.5 (±0.020), XXX=±0.25 (±0.010), XXXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030). MIN=+DECIMAL PRECISION -0.00 MAX.=+0.00 -DECIMAL PRECISION

REV.

PART NUMBER

OED-LDC13001EBD

1310nm LASER DIODE, TO-18 (Ø5.6mm) PACKAGE,
10mW OUTPUT.

CONFIDENTIAL INFORMATION

THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF LUMEX INC. EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY LUMEX INC., THE HOLDER OF THIS DOCUMENT SHALL KEEP ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL AND SHALL PROTECT SAME IN WHOLE OR IN PART FROM DISCLOSURE AND DISSEMINATION TO ALL THIRD PARTIES.

RELIABILITY NOTE

OUR MANY YEARS OF EXPERIENCE DATA ACCUMULATION INDICATE THAT SOLDER HEAT IS A MAJOR CAUSE OF EARLY AND FUTURE FAILURE. PLEASE PAY ATTENTION TO YOUR SOLDERING PROCESS.

LUMEX
INCORPORATED

290 E. HELLEN ROAD
PALATINE, ILLINOIS 60067
PHONE: (847) 359-2790
WEB: <http://www.lumex.com>

DRAWN BY: SK CHECKED BY: APPROVED BY: DATE: 5-3-00

PAGE: 1 OF 1

SCALE: N/A