
OEL-512A-C310-53GB00

53Gbd EML Cooled TO CAN

FEATURES

- ✧ 8pins cooled TO-CAN package
- ✧ 50Ω single-ended data input
- ✧ Case operating temperature range from - 5°C to +75°C

APPLICATION

- ✧ 100G LR1/ER1 Application
- ✧ 50G LR1 Applications

DESCRIPTION

ELECTRICAL AND OPTICAL CHARACTERISTICS (T _{ld} =53°C, unless otherwise specified)						
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I _{th}	Threshold Current	CW		23	30	mA
V _{OP}	Operating Voltage	CW, I _{op} =100mA, V _{ea} =0V		1.3	1.8	V
PL	Optical output power from lens	CW, I _{op} =100mA, V _{ea} =0V	7.5			mW
DC ER	DC Extinction Ratio, fiber coupled	CW, I _{op} =100mA, V _{ea} =0 ~ -2V	12			dB
V _{ea}	EA Operating voltage	CW, I _{op} =100mA, V _{pp} =1V	-2		-0.2	V
FL	Focal distance		7.7		9.3	mm
λ _c	Center Wavelength*	CW, I _{op} =100mA	1304.5	1311	1317.5	nm
SMSR	Side Mode Suppression Ratio	CW, I _{op} =100mA	35			dB

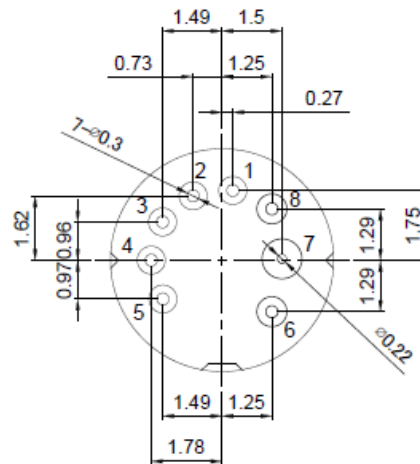
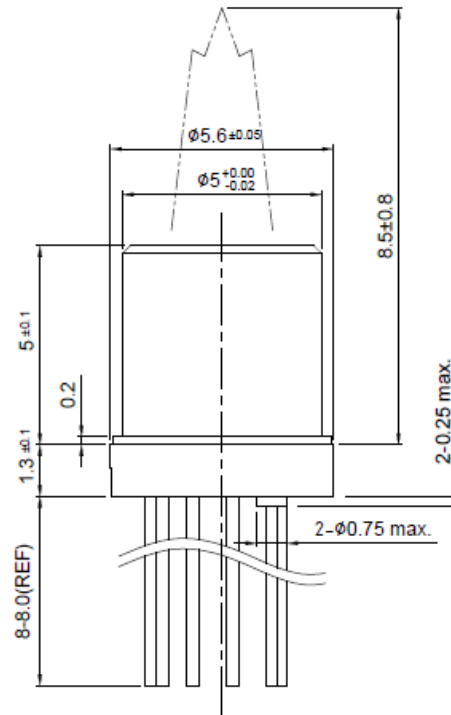
*All wavelengths are available upon request by customers.

THERMAL CHARACTERISTICS						
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
R _{th}	Thermistor resistance	25°C	9.5		10.5	kΩ
B	B constant of R _{th}	25°C/50°C		3930		K
I _{TEC}	TEC Current	ΔT=30°C			0.6	A
V _{TEC}	TEC Voltage	ΔT=30°C	-1.5		1.5	V
P _{TEC}	TEC Power	ΔT=30°C			0.9	W

ABSOLUTE MAXIMUM RATINGS				
Symbol	Parameter	Min	Max	Unit
V _{RL}	LD Reverse Voltage		2	V
I _f	LD Forward Current		120	mA
P _o	Optical Output Power		40	mW
V _{RM}	EA Modulator Reverse Bias	-4	0.5	V
V _{pe}	TEC Voltage		1.8	V
I _{pe}	TEC Current		1	A
T _{opr}	Operating Temperature	-5	75	°C
T _{stg}	Storage Temperature	-40	85	°C

MECHANICAL DIMENSION (mm) and PIN ASSIGNMENT

PIN	Description
1	TEC+
2	TEC-
3	MPD+
4	LD+
5	THERMISTOR
6	SIGNAL GND
7	EAM+
8	SIGNAL GND



Revision History

Version	Subject	Release Date
1.0	Initial datasheet	2023/10/1