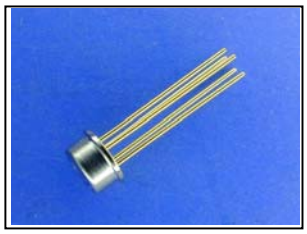
TMC-5F59-427

10Gbps 850nm VCSEL TO-46 metal can with monitor PD

FEATURES:



- Industry TO-46 package of cap lens for multi-mode fiber communication .
- Packaged with monitoring PD.
- Support up to 10.3125 Gbps data rate operation.
- Isolated pinout between LD and monitor PD.

ELECTRO-OPTICAL CHARACTERISTICS:

PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS[1]
Threshold Current	I_{th}		1.0 2.0	1.5 2.5	mA	T_A=25°C T_A=85°C
Slope Efficiency	η	0.12			mW/mA	I_F=6mA
Forward Voltage	V_F	1.7		2.6	V	I_F=6mA
Series Resistance	R_S		65		Ω	I_F=6mA, T_A= 25°C
Wavelength	λ_P	840	850	860	nm	I_F=6mA[2]
Monitor Current	I_M	50		1500	μA	V_R=5V, I_F=6mA
PD Dark Current	I_d			20	nA	V_R=5V, T_A = 25°C
PD Capacitance	C_M		12		pF	V_R=3V, f= 1MHz

THERMAL CHARACTERISTICS:

PARAMETERS	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
I_{th} Temperature Variation	ΔI_{th}			1.5	mA	T_A= -10~85°C
η Temperature Coefficient	$\Delta\eta/\Delta T$		-0.4		%/°C	T_A= -10~85°C, I_F=6mA
λ_P Temperature Coefficient	$\Delta\lambda_P/\Delta T$		0.07		nm/°C	T_A= -10~85°C, I_F=6mA

Notes:
1. All parameters are measured at I_F=6mA, 25°C unless otherwise stated.
2. Minimum and Maximum values are valid over the entire ambient temperature range.

ABSOLUTE MAXIMUM RATINGS:

PARAMETERS	MIN	MAX	UNIT	CONDITIONS
Storage Temperature	-40	100	°C	
Operating Temperature	-10	85	°C	
Peak Continuous Forward Current		10	mA	
Laser Reverse Voltage		10	V	

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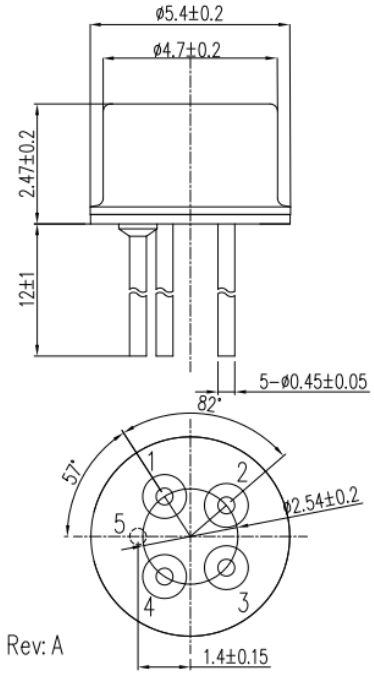
OUTLINE DIMENSIONS:

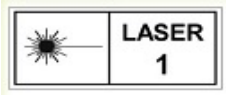
• Unit: mm



Pinout:

Pin Number	TMC-5F59-427
	Function
1	VCSEL Anode
2	PD Cathode
3	PD Anode
4	VCSEL Cathode
5	Case

The VCSEL Laser is a class 1 laser in the safety standard IEC60825-1:2014.



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