ML7xx32 SERIES

Notice: Some parametric limits are subject to change

10Gbps InGaAsP DFB LASER DIODE

TYPE NAME

ML792E32/ML792H32

DESCRIPTION

ML7xx32 series are uncooled DFB (Distributed Feedback) laser diodes for 10Gbps transmission emitting light beam at 1310nm. λ/4 phase shifted grating structure is employed to obtain excellent SMSR performance under 10Gbps modulation. Furthermore, ML7xx32 is able to operate in the wide temperature range from 0°C to 85°C without temperature control.

APPLICATION

10Gbps Ethernet/Short Reach

***Specification Note

Type	Matching Resistance :Rs
ML792E32-01 ML792H32-01	42 ± 1 ohm

FEATURES

- λ/4 phase shifted grating structure
- Wide temperature range operation (0°C to 85°C)
- High side-mode-suppression-ratio (typical 45dB)
- High resonance frequency (typical 15GHz)
- Chip-on-carrier

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Conditions	Ratings	Unit
If	Laser forward current	-	**120**	mA
VRL	Laser reverse voltage	-	**2**	V
Tc	Operation temperature	-	**0 ~ +85**	°C
Tstg	Storage temperature	-	**-40 ~+100**	°C

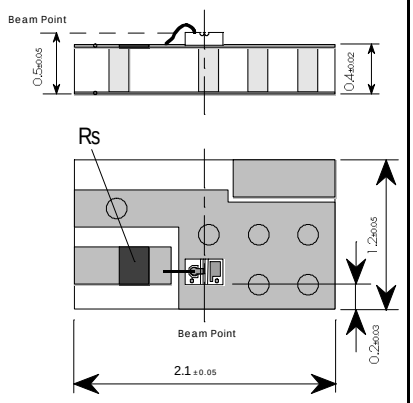
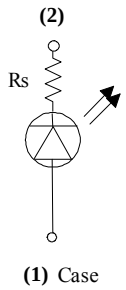
ELECTRICAL/OPTICAL CHARACTERISTICS (Tc=25°C)

Symbol	Parameter	Conditions	Limits			Unit
			Min.	Typ	Max	
Ith	Threshold current	CW	-	**9**	**20**	**mA**
		CW,Tc=85°C	-	**30**	**40**	**mA**
Iop	Operation current	CW,Po=5mW	-	**30**	**40**	**mA**
		CW,Po=5mW,Tc=85°C	-	**70**	**90**	**mA**
Vop	Operating voltage	CW,Po=5mW	-	**1.1**	**1.8**	**V**
η	Slope efficiency	CW,Po=5mW	**0.20**	**0.25**	-	**mW/mA**
λp	Peak wavelength	CW,Po=5mW,Tc= 0°C ~ +85°C	**1290**	**1310**	**1330**	**nm**
SMSR	Side mode suppression ratio	CW,Po=5mW,Tc= 0°C ~ +85°C	**35**	**45**	-	**dB**
θ ∥	Beam divergence angle (parallel)	CW,Po=5mW	-	**25**	**40**	**deg.**
θ ⊥	(perpendicular)	CW,Po=5mW	-	**30**	**45**	**deg.**
fr	Resonance frequency	10Gbps, Ex=7dB, Vpp=2.0V	-	**15**	-	**GHz**
tr	Rise time(20%-80%)	10Gbps, Ex=7dB, Vpp=2.0V 4th order Bessel - Thompson Filter	-	**30**	**40**	**psec**
tf	Fall time(20%-80%)		-	**30**	**40**	

ML7XX32 SERIES

10Gbps InGaAsP DFB-LASER DIODE

OUTLINE DRAWINGS

ML792E32		
ML792H32	