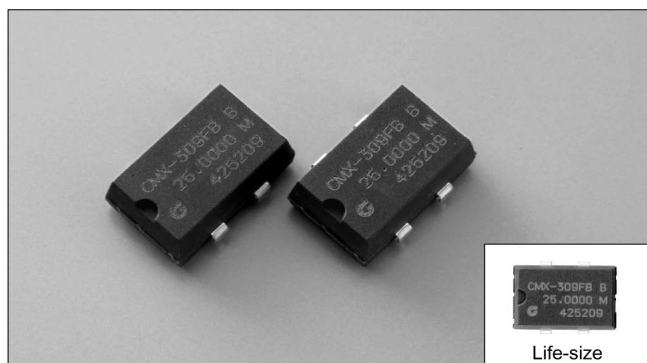


CLOCK OSCILLATORS (SMD • Plastic Package)

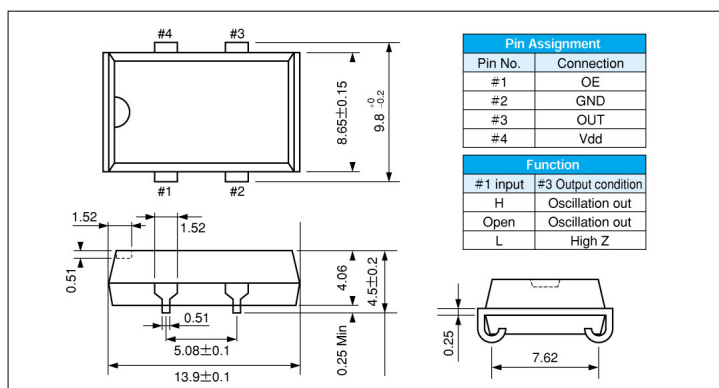
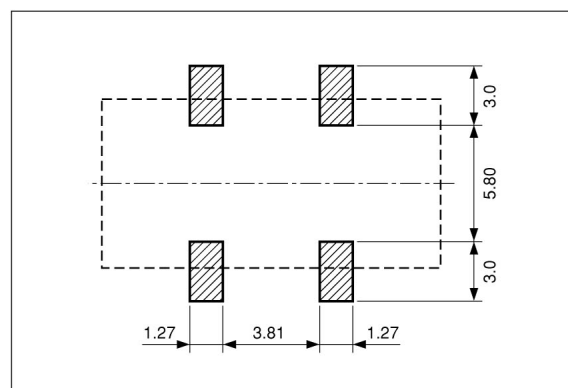
RoHS Compliant Optional

CMX309 SERIES

1000pcs/reel

**FEATURES**

- Embedded with heat resistant cylinder type crystal bring highly stable characteristics.
- Automatic mounting and reflowable Type.
- Low power consumption with output enable function (OE).
- Suitable for various applications such as communication devices, AV devices, automotive devices and measuring instruments.

DIMENSION [mm]**SOLDER PAD LAYOUT [mm]****STANDARD SPECIFICATIONS**

* Model is determined by the selection for the frequency, the supply voltage, the duty and the frequency stability.

Model		CMX309			
Item		FL(*) / FS(*)	HW(*) / HS(*)	FB(*) / FA(*)	HB(*) / HA(*)
Frequency Range		1.000MHz~30.000MHz	30.001MHz~70.000MHz	1.000MHz~30.000MHz	30.001MHz~70.000MHz
Supply Voltage		Vdd : 5.0V±0.5V		Vdd : 3.3V±0.3V	
Duty	TTL level (1.4V)	FL:45~55%,FS:40~60%	HW:45~55%,HS:40~60%	—	—
	CMOS level (1/2 Vdd)	FL:40~60%,FS:45~55%	HW:40~60%,HS:45~55%	FB:40~60%,FA:45~55%	HB:40~60%,HA:45~55%
Frequency Stability	(*)	C : ±100ppm (−10℃~+70℃), B : ±50ppm (−10℃~+70℃), F : ±100ppm (−40℃~+85℃)			
Operating Temperature Range		−40℃~+85℃			
Storage Temperature Range		−55℃~+125℃			
Current consumption		23mA Max.	35mA Max.	9mA Max.	20mA Max.
Output Voltage	V _{OH}	0.9Vdd Min.		0.9Vdd Min.	
	V _{OL}	0.4V Max.		0.1Vdd Max.	
Output Load	TTL	10 TTL Max.		—	
	CMOS	50pF Max.		30pF Max.	
Rise and Fall Time	TTL	8 nsec Max.	5 nsec Max.	—	
	CMOS	8 nsec Max.	7 nsec Max.	6 nsec Max.	
Start-up time		4 msec Max.	10 msec Max.	4 msec Max.	10 msec Max.
Input Voltage		V _{IH} : 2.0V Min, V _{IL} : 0.8V Max			V _{IH} : 2.4V Min, V _{IL} : 0.6V Max
Disable current		12 mA Max.	28 mA Max.	5 mA Max.	15 mA Max.
Aging (first year)		±5ppm / year Max.			