

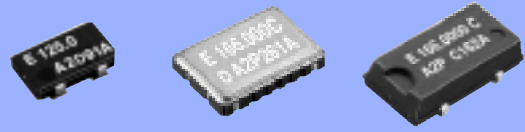
CRYSTAL OSCILLATOR SPREAD SPECTRUM

SG-9001LB / CA / JC series

- Frequency range : 10 MHz to 166 MHz
- Supply voltage : 3.3 V
- Function : Output enable(OE)
- Thickness : 1.15 mm Typ.(SG-9001LB)
1.40 mm Typ.(SG-9001CA)
- Range of spreading percentage is selectable by program
(Center or Down spread, 6 Values)



CA, LB
Type Only



Actual size



Specifications (characteristics)

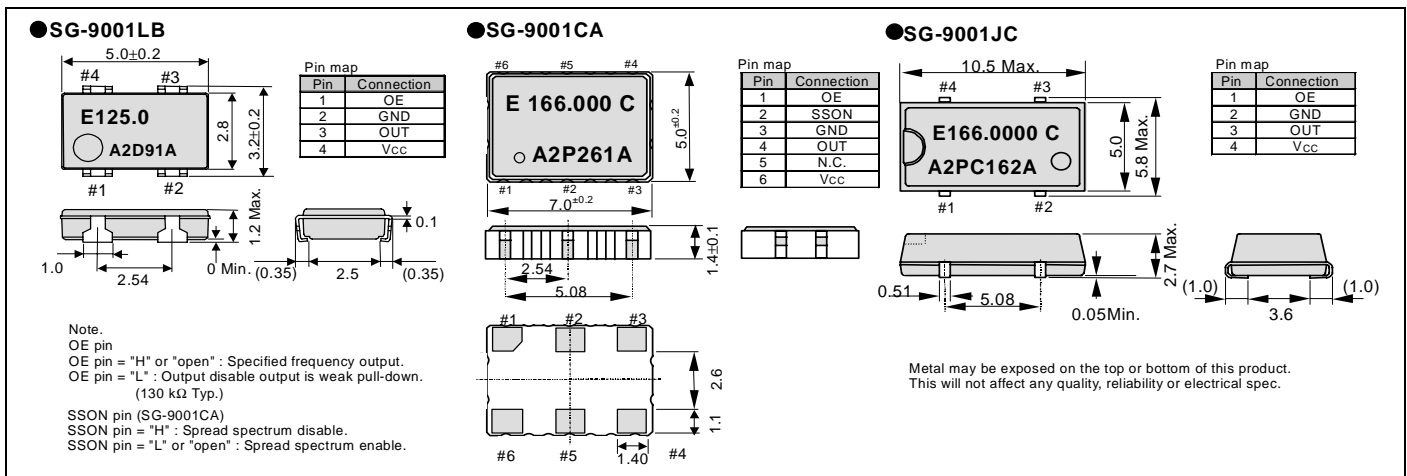
Item	Symbol	Specifications	Remarks
Output frequency range	f_0	10.000 MHz to 166.000 MHz 10.000 MHz to 135.000 MHz	SG-9001JC, CA SG-9001LB Please contact us for inquiries regarding available frequencies.
Supply voltage	V _{cc}	3.3 V \pm 0.3 V	
Temperature range	Storage temperature	-55 °C to +100 °C	SG-9001JC SG-9001LB, CA Store as bare product after unpacking.
	Operating temperature	-40 °C to +125 °C	
Current consumption	I _{cc}	30 mA Max.	No load condition, $f_0 = 166$ MHz
Output disable current	I _{dis}	20 mA Max.	OE=GND, $f_0 = 166$ MHz
Symmetry	SYM	45 % to 55 %	CMOS load: 50 % V _{cc} level, L _{CMOS} =15 pF
High output voltage	V _{OH}	V _{cc} -0.4 V Min.	I _{OH} =-8 mA
Low output voltage	V _{OL}	0.4 V Max.	I _{OL} = 8 mA
Output load condition	L _{CMOS}	15 pF Max.	
Output enable / disable input voltage	V _{IH}	70 % V _{cc} Min.	OE terminal
	V _{IL}	30 % V _{cc} Max.	OE terminal
Output rise and fall time	t _r / t _f	2.7 ns Max.	20 % V _{cc} to 80 % V _{cc} level, L _{CMOS} =15 pF.
Oscillation start up time	t _{osc}	10 ms Max.	Time at minimum supply voltage to be 0 s
Frequency aging	f _{aging}	$\pm 5 \times 10^{-6}$ / year Max.	+25 °C, First year

Spread Spectrum Specifications

Center Spread	Code	C02P	C05P	C07P	C10P	C15P	C20P
	Percentage		± 0.25 %	± 0.5 %	± 0.75 %	± 1.0 %	± 1.5 %
Down Spread	Code	D05P	D10P	D15P	D20P	D30P	D40P
	Percentage		-0.5 %	-1.0 %	-1.5 %	-2.0 %	-3.0 %

External dimensions

(Unit:mm)



Footprint (Recommended)

(Unit:mm)

