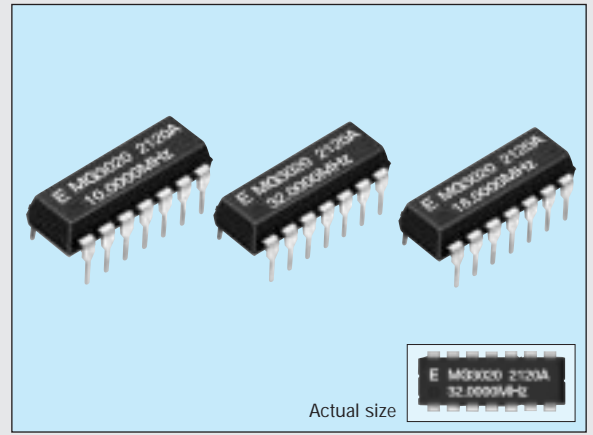


MULTI-OUTPUT CRYSTAL OSCILLATOR

MG-3020DD

- Simultaneous output. (1/1, 1/2, 1/4, 1/8 and 1/16 output frequency ratio)
- Builtin cylindrical-type AT-cut crystal unit assures high reliability.
- DIP 14-pin plastic package allows automatic mounting.
- External clock select function, dividing circuit reset function and 1/2 divider select function.



Actual size

Specifications (characteristics)

Absolute Max. rating

Item	Symbol	Rating
Supply voltage	V_{DD}	-0.5V to +7.0V
Input voltage	V_I	-0.5V to $V_{DD} + 0.5V$
Output current	I_O	30mA max.
Storage temperature	T_{STG}	-55°C to +100°C
Soldering condition	T_{SOL}	Under 260°C within 10 sec. (lead part) Package should be less than 150°C

Operating range

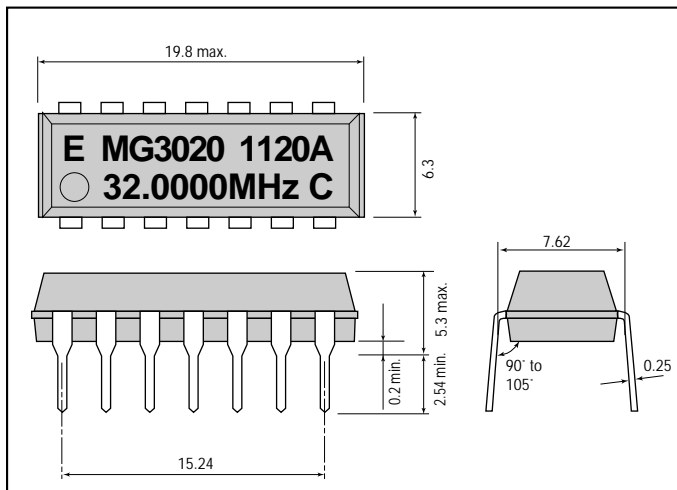
Item	Symbol	Rating			Unit
		Min.	Typ.	Max.	
Operating voltage	V_{DD}	4.5	5.0	5.5	V
Output current	I_O			1.6	mA
Operating temperature	T_{OPR}	-10	25	70	°C
Output load condition	C_L			15	pF

Frequency characteristics oscillation source frequency is 17.7340 to 40.000 MHz

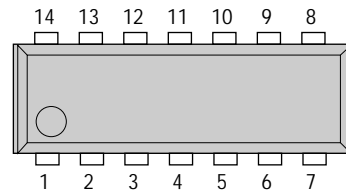
Item	Symbol	Specification	Remarks
Frequency stability	$\Delta f/f_0$	± 100 ppm	-10 to +70°C
Aging	f_a	± 5 ppm/Y	$T_a = 25^\circ\text{C}$, $V_{DD} = 5V$ first year

External dimensions

(Unit: mm)



Terminal connection



Terminal	Pin No.	Function
V_{DD}	14	+5V power supply
GND	7	GND
OUT ₁	8	1/1 source frequency
OUT ₂	9	1/2 source frequency
OUT ₃	10	1/4 source frequency
OUT ₄	11	1/8 source frequency
OUT ₅	12	1/16 source frequency
F_{OUT}	13	Source frequency
\overline{CSEL}	4	When this pin is made L, the external clock is selected (pull-up resistor incorporated)
EXC	5	External clock pulse input pin
\overline{RESET}	3	Stops output at $\overline{RESET} = L$ (pull-up resistor incorporated)
1/2 SEL	6	1/2 frequency output at $\overline{1/2SEL} = L$ (pull-up resistor incorporated)
NC	1 and 2	NC is not connected internally

When the power switch is turned on in \overline{RESET} L level mode, please note that all output becomes high impedance. To resume normal operation, disable the \overline{RESET} terminal.

Block diagram

