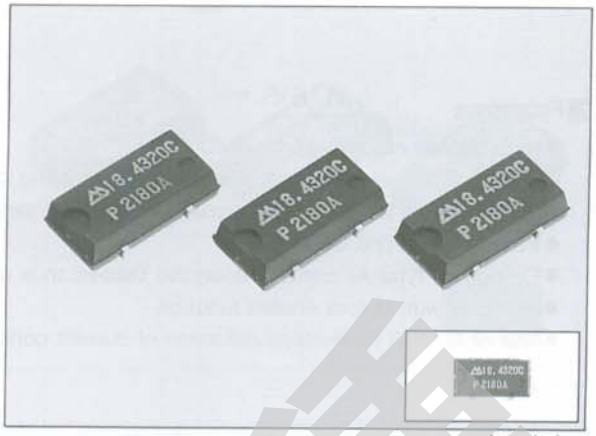
SMALL SMD TYPE HIGH FREQUENCY CRYSTAL OSCILLATOR

SG-636P

- Small type SMD, thus allowing high density mounting
- Designed for universal purpose with built-in heat-resisting cylindrical type AT cut crystal and allowing almost the same temperature condition for soldering as SMD IC
- Height is 2.5mm
- Use of C-MOS IC enables reduction of current consumption
- Provided with output enable function



Actual size

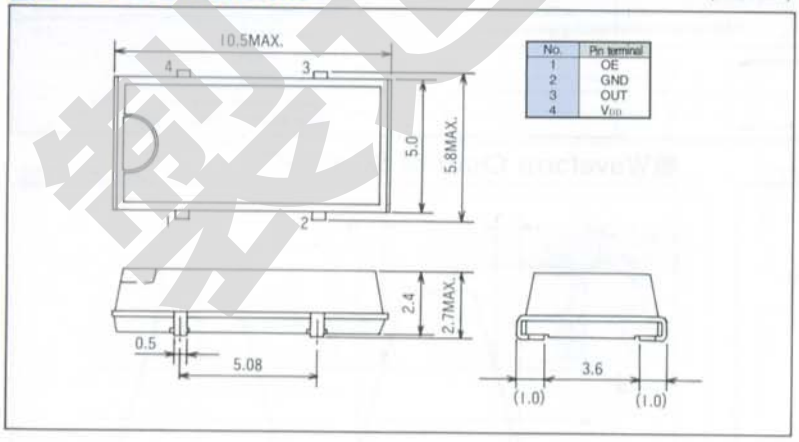
■Specifications (characteristics)

Item		Symbol	Specifications	Remarks
Output frequency range		fo	2.2167MHz to 40.000MHz	
Power source voltage	MAX. supply voltage	V_{DD}-V_{SS}	−0.5V to +7.0V	
	Operating voltage	V_{DD}	5.0V ±0.5V	
Temperature range	Storage temperature	T_{STG}	−55°C to +100°C	Stored without Tape and Reel
	Operating temperature	T_{OPR}	−10°C to +70°C	
Soldering condition		T_{SOL}	Under 260°C witnin 10 sec.×2 times or under 230°C within 3 min.	
Frequency stability		△f/fo	C : ±100ppm	−10°C to −70°C
Current consumption		I_{OP}	16mA MAX.	No load condition
Duty		T_W/T	40% to 60% (45% to 55% ※1)	1/2 V_{DD} level
Output voltage		V_{OH}	V_{DD}−0.4V MIN.	I_{OH}=−2mA
		V_{OL}	0.4V MAX.	I_{OL}=2mA
Output load condition		N	5LS TTL MAX.	LSTTL load
		CL	15pF MAX.	C-MOS load
Output enable voltage		V_{IH}	2.0V MIN.	
		V_{IL}	0.8V MAX.	
Output disable current		I_{OE}	12mA MAX.	OE terminal=GND
Output rise time		t_{TLH}	7nsec.MAX.	Refer to output waveform chart (page 9)
Output fall time		t_{THL}	7nsec.MAX.	
Oscillation start time		t_{OSC}	10msec MAX.	More than for 1ms until V_{DD}=0V→4.5V. Time at 4.5V to be 0sec.
Aging		fa	±5ppm/year MAX.	Ta=25°C, V_{DD}=5V, first year
Shock resistance		S. R.	±20ppm MAX.	Drop test of 3 times on a hard board from 75cm height or excitation test with 3000G×0.3ms×1/2 sine wave in 3 directions

Note ● Unless otherwise stated, characteristics (specifications) shown in the above table are based on the rated operating temperature and voltage condition.
● The SG-636PT for a TTL load is also available. Please consult us.
※1 It is possible depending on condition, refer to reference data

■External Dimensions

(Unit : mm)



■View of recommended soldering pattern (Unit : mm)