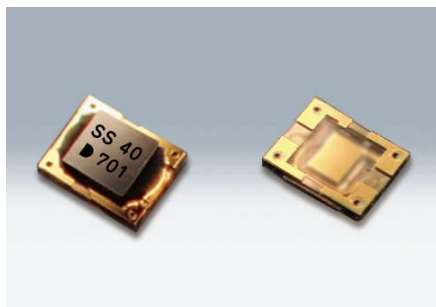


SMD Crystal Oscillators

DS1008JS



Actual size □

■ Features

- 1008 size, height 0.24mm max. Unprecedented extremely low-profile package using a novel structure
- Available frequency range : 1 to 100MHz
- Supply Voltage : +1.8V to +3.3V
- 3-state function
- Available up to 100MHz by using AT cut fundamental resonator. Low jitter provides for high performance.

■ Applications

- Mobile communications and short-range wireless modules
- Wearable devices
- Automotive multimedia device



GOOD DESIGN
AWARD 2019

■ Standard Specification

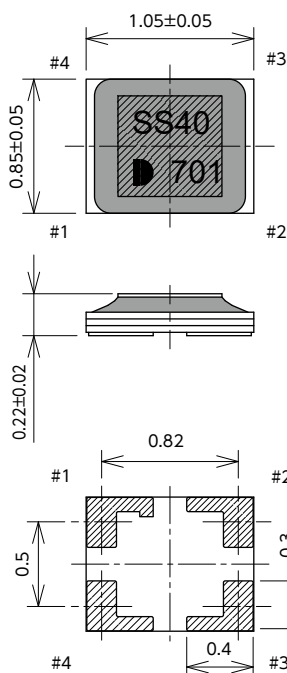
| Item | Type | Legend | Spec. | | | Unit | Condition | |
|--|------|-------------------|---------|------|---------|------------------|---|--|
| | | | min. | typ. | max. | | | |
| Frequency Range | | f_0 | 1 | — | 100 | MHz | | |
| Supply Voltage | | Vcc | +1.6 | — | +3.6 | V | | |
| Frequency Tolerance (Includes frequency tolerance at room temperature.) | | f_{tol} | -100 | — | +100 | $\times 10^{-6}$ | -40 to +125°C | -20 to +70°C (Standard Operating Temperature Range) |
| | | | -50 | — | +50 | | | |
| | | | -30 | — | +30 | | -30 to +85°C | |
| | | | -20 | — | +20 | | | |
| Current Consumption | | Icc | — | — | 1.8 | mA | $f_0=24\text{MHz}$, Vcc=+1.8V, No Load | |
| Stand-by Current (#1 pin "L" Level) | | I _{std} | — | — | 0.01 | mA | | |
| Load Condition | | L _{CMOS} | — | — | 15 | pF | | |
| Symmetry | | SYM | 45 | 50 | 55 | % | at 50% Vcc, $f_0 < 60\text{MHz}$ | |
| Rise and Fall Time | | tr, tf | — | — | 5 | ns | 10 to 90% Vcc Level | |
| Output Enable Time | | tPZL | — | — | 2 | ms | | |
| Output Disable Time | | tPLZ | — | — | 200 | ns | | |
| OE Pin 1 Level Input Voltage | | V _{IH} | Vcc×0.8 | — | — | V | | |
| OE Pin 0 Level Input Voltage | | V _{IL} | — | — | Vcc×0.2 | V | | |
| Packing Unit (1) | | | | | | | 3000pcs./reel (φ 180) | |

(1) Moisture prevention packing

Consult our sales representative for other specifications

[mm]

■ Dimensions



Pin Connection

| Pin No. | Connection |
|---------|--------------------|
| #1 | OE (Output Enable) |
| #2 | GND |
| #3 | Output |
| #4 | Vcc |

Function

| #1 input | #3 Output condition |
|----------|---------------------|
| H | Oscillation out |
| Open | Oscillation out |
| L | High Z |

■ Recommended Land Pattern

(Top View)

