

PRODUKT-INFO

SCO-25 SMD CRYSTAL OSCILLATOR

FEATURES

1. Compact & lightweight design: 2.5 x 2.0 x 0.9 mm max.
Weight: 13 mg
2. Wide range of operating supply voltage: 1.8V, 2.5V, 3.3V
3. Ceramic package and metal lid sealed by electron beam ensure high reliability.
4. Lead-free reflow soldering is available.



APPLICATION

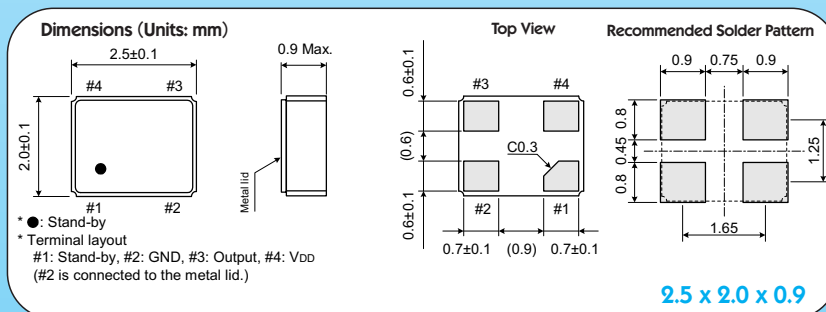
Mobile communication, wireless modules.

ELECTRICAL SPECIFICATIONS		SCO-25
Model	SCO-25	
Frequency Range	1.0 MHz ~80.0 MHz	
Frequency Stability	±7 ppm / ±10 ppm / ±15 ppm / ±20 ppm / ±30 ppm / ±50 ppm	
Operating Temperature Range	-20°C to +70°C, -30°C to +85°C, -40°C to +85°C option	
Storage Temperature Range	-40°C to +85°C, -40°C to +105°C option	
Supply Voltage (V_{DD})	1.8V DC ±10%	2.5V DC ±10% 3.3V DC ±10%
Current Consumption during Operation	3.0 mA max.; F = 40MHz, V _{DD} = 3.0V, no load 10 µA max.; Stand-by = „L“	
Output Load	15 pF, max., CMOS	
Output Voltage	V _{OH} V _{OL}	V _{DD} - 0.4 V min.; I _{OH} = -4 mA 0.4 V max.; I _{OL} = +4 mA
Rise Time	10% V _{DD} ~ 90% V _{DD}	5.0 ns max.
Fall Time	90% V _{DD} ~ 10% V _{DD}	5.0 ns max.
Duty Cycle	50% ± 5%	
Startup Time	2.0 ms max.; V _{DD} = 3.3V 5.0 ms max.; V _{DD} = 1.8V	
Random Jitter* (RJ)	3.7 ps; V _{DD} = 3.3V	
Total Jitter* (TJ)	51 ps; V _{DD} = 3.3V, TJ = n x RJ (n ≈ 14.1, BER = 10 ⁻¹⁸)	
Phase Jitter	1.0 ps; V _{DD} = 3.3 V Offset Frequency 12kHz ~ 5MHz	
Stand-by Terminal Function (V)	High	0.7 V _{DD} min.; Output enable
	Low	0.3 V _{DD} max.; Oscillation stop and high impedance output

■ **OPTIONS:** * Measured by wave crest 3100C.

■ **OPTIONS:** For operational stability, the bypass capacitor (0.01 µF ~0.1 µF) between V_{DD} and GND should be placed as close to the product as possible.

Other specifications can be available.



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All specifications subject to change without notice.