

SMD Type Crystal Oscillators

DOC-49S SERIES



■ Features

- Crystal oscillator with C-MOS oscillation circuit built into AT-49 package. Miniature and high precision.
- S1 is a low current consumption and a low harmonic type. S2 covers high frequencies. S3 is a high output load (CL=50pH). S5 is for high speed and high drive.
- High reliability with grounded hermetic seal of metal case.

■ Applications

- PC, game equipment and peripheral equipment.

■ Generic Specification

Item	Type	DOC-49S1	DOC-49S2	DOC-49S3	DOC-49S4	DOC-49S5
Output Frequency Range		156.25kHz~20.0MHz	20.1~70MHz	1.25~20MHz	1.25~50MHz	1.25~50MHz
Frequency Stability		±50×10 ⁻⁶ , ±100×10 ⁻⁶				
Operating Temperature Range		-10~+70°C				
Storage Temperature Range		-20~+80°C				
Output		C-MOS			TTL	C-MOS
Output Characteristics	"0"Level	10%V _{DD} max.			+0.5V max.	10%V _{DD} max.
	"1"Level	90%V _{DD} min.			+2.4V min.	90%V _{DD} min.
	Symmetry of Wave Form	40~60% (F _o ≥10MHz) 45~55% (F _o <10MHz)	40~60%	40~60% (F _o ≥10MHz) 45~55% (F _o <10MHz)	40~60% (+1.4VDC)	40~60% (F _o ≥20MHz) 45~55% (F _o <20MHz)
	Rise and Fall Time	50nsec. max. (F _o <2MHz) 20nsec. max. (F _o ≥2MHz)	10nsec. max. (F _o ≤50MHz) 8nsec. max. (F _o ≤70MHz)	15nsec. max.	8nsec. max. (F _o <29MHz) 5nsec. max. (29MHz≤F _o ≤50MHz)	8nsec. max.
Supply Voltage		+5.0V DC±10%				
Current Consumption		5mA max. (No Load)	20mA max. (F _o ≤50MHz, No Load) 45mA max. (F _o ≤70MHz, No Load)	10mA max. (No Load)	10mA max. (F _o ≤20MHz, No Load) 35mA max. (20MHz<F _o ≤50MHz, No Load)	
Output Load		C _L =15pF or 2LS-TTL	C _L =15pF or 2LS-TTL	C _L =50pF or 10LS-TTL	10TTL	C _L =50pF or 10TTL

Consult our sales representative for other specifications.

■ Dimensions [mm]

