

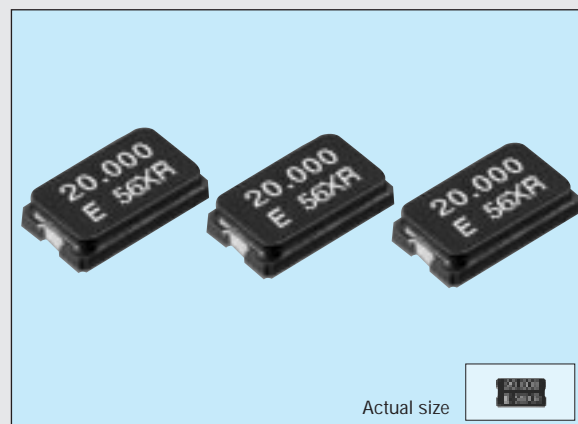
## THIN SMD HIGH-FREQUENCY CRYSTAL UNIT

## FA-365

Products number

Q22FA365xxxx00

- High-density mounting-type SMD.
- Excellent reliability and environment capability.
- Capable of covering a wide frequency range. (12 MHz and from 14 MHz to 41 MHz)
- 1.4 mm thickness is equal to SMD-type IC.



Actual size



## Specifications (characteristics)

Item	Symbol	Specifications	Remarks	
Nominal frequency range	f	12.000 MHz, 14.000 MHz to 41.000 MHz	Fundamental mode	
Temperature range	Storage temperature	T <sub>STG</sub>	-55 °C to +125 °C	Stored as bare product after unpacking
	Operating temperature	T <sub>OPR</sub>	-20 °C to +70 °C	
Drive level	Maximum drive level	GL	2 mW Max.	Only crystal oscillation is guaranteed
	Recommended drive level	DL	10 μW to 100 μW	
Frequency tolerance (standard)	Δf/f	±50 x 10 <sup>-6</sup> , ±100 x 10 <sup>-6</sup>	T <sub>a</sub> =+25 °C±3 °C	
Frequency temperature characteristics (standard)		±30 x 10 <sup>-6</sup>	-20 °C to +70 °C	
Load capacitance	C <sub>L</sub>	10 pF to ∞	Please specify	
Series resistance	R <sub>1</sub>	60 Ω Max.(12.000 MHz)	-20 °C to +70 °C,DL=100 μW	
		50 Ω Max.(14.000 MHz to 41.000MHz)		
Shunt capacitance	C <sub>0</sub>	5.0 pF Max.		
Insulation resistance	IR	500 MΩ Min.		
Aging	f <sub>a</sub>	±5 x 10 <sup>-6</sup> /year Max.	T <sub>a</sub> =+25 °C ±3 °C, first year	
Shock resistance	S. R.	±10 x 10 <sup>-6</sup> Max.	Three drops on a hard board from 750 mm or excitation test with 29400 m/s <sup>2</sup> x 0.3 ms x 1/2 sine wave x 3 directions	

## External dimensions

(Unit: mm) Recommended soldering pattern (Unit: mm)

