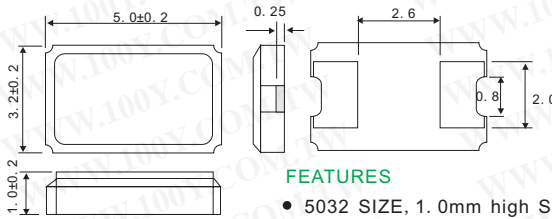


Timing Function IC

SMD Crystals

Detailed product specifications are available on: us.100y.com.tw



Item	Type	DSX530GA			
Frequency range		7~9MHz	9~12MHz	12~40MHz	40~54MHz
Overtone order		Fundamental			
Load capacitance		Series, 8pF, 10pF, 12pF			
Drive Level		10µW (300µW max.)			
Frequency toleracne		±30x10 ⁻⁶ , ±50x10 ⁻⁶ , ±100x10 ⁻⁶ (at 25°C)			±50x10 ⁻⁶ , ±100x10 ⁻⁶ (at 25°C)
Series resistance		150Ω max.	100Ω max	50Ω max.	

FEATURES

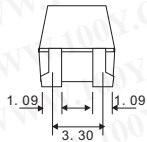
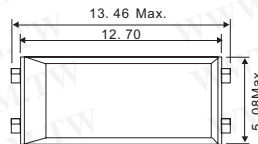
- 5032 SIZE, 1.0mm high SMD crystal resonator miniature and low profile
- Excellent heat resisting, High precision and high reliability
- Available from 7 to 54MHz
- Suitable for PDA, car navigation system, digital AV equipment and other equipment

Part No.	Product No.	Manufacturer	Description	Frequency(MHz)	Load capacitance(pF)	Can Style
28535	DSX530GA-16.000MHz	KDS	SMD Type Crystal Resonator	16.000MHz	12pF	5*3.2*1.0mm



This kind of resonators is widely used in computers, facsimiles, TV, AV kind of equipment and instruments

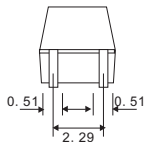
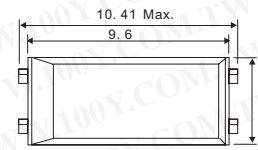
Part No.	Product No.	Description	Frequency(MHz)	Load capacitance(pF)	Can Style	±ppm
23339	ESB32.7680T20D35F	SMD Quartz Crystal Units	32.768MHz	20pF	HC-49/S-SMD	±30ppm



Item	Symbol	Specifications	Remarks
Nominal frequency	f	4.000 MHz to 29.999 Mhz *1 30.000 MHz to 64.000 Mhz *2	Fundamental mode 3rd overtone mode
Storage temperature	T _{STG}	-55 °C to +125 °C	Stored as bare product after unpacking
Operating temperature	T _{OPR}	-20 °C to +70 °C	Please contact us on availability of -40 °C to +85 °C
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 x10 ⁻⁶	Ta=+25 °C±3 °C
Frequency temperature characteristics(standard)		Under 5.5 MHz: ±50 x10 ⁻⁶ Over 5.5 MHz: ±30 x10 ⁻⁶	-20 °C to +70 °C For the out of standard specifications, please contact us for inquires
Load capacitance	C _L	Fundamental: 10 pF to ∞ Over tone: 5 pF to ∞	Please specify
Series resistance	R ₁	As per table below	-20 °C to +70 °C, DL=100 µW
Shunt capacitance	C ₀	5 pF Max.	
Insulation resistance	IR	500 MΩMin.	
Aging	fa	±5 x10 ⁻⁵ /year	Ta=+25 °C ±3 °C, first year
Shock resistance	S.R.	±10 x10 ⁻⁶ Max.	Three drops on a hard board from 750 mm or excitation test with 29400 m/s ² x 0.3 ms x 1/2 sine wave x 3 directions

- Excellent heat-resistance and environment capability.
- Cover a wide frequency range, from 4 MHz to 64 Mhz.

Part No.	Product No.	Manufacturer	Description	Frequency(MHz)	Load capacitance(pF)	Can Style	±ppm
11848	MA-506-32.000M	EPSON	SMD High-Frequency Crystal	32.000	20pF	MA-506	30ppm
11847	MA-506-4.194M	EPSON	SMD Quartz Crystal	4.194	18	MA-506	30ppm



Item	Symbol	Specifications	Remarks
Nominal frequency range	f	32.768 kHz 20.000 kHz to 165.000 kHz 307.2 kHz	
Storage temperature	T _{STG}	-55°C to +125°C	Stored as bare product after unpacking
Operating temperature	T _{OPR}	-40°C to +85°C	
Maximum drive level	GL	1.0µW max.	
Soldering condition	T _{SOL}	Twice at under 260°C within 10 sec. or under 230°C within 3 min.	
Frequency tolerance (standard)	Δf/f	±20ppm, ±50ppm ±50ppm, ±100ppm (307.2 kHz: ±100ppm)	Ta=25°C, DL=0.1µW
Turnover temperature (frequency)	OT	25°C ±5°C	
Temperature coefficient (frequency)	a	-0.04ppm/°C max.	
Load capacitance	C _L	6pF to ∞	Please specify
Series resistance	R ₁	50 kΩmax. 55kΩ to 6kΩ	For details, refer to 15
Motion capacitance	C ₁	2.0fF typ. 4.0fF to 0.6fF	
Shunt capacitance	C ₀	0.85pF typ. 2.0pF to 0.6pF	
Insulation resistance	IR	500 MΩ min.	
Aging	fa	±3ppm/year max. ±5ppm/year max.	Ta=25°C±3°C, first year
Shock resistance	S.R.	±5ppm max.	Three drops on a hard board from 75 cm or excitation test with 3000G x 0.3ms x 1/2 sine wave x 3 directions

- High-density mounting-type SMD.
- Photolithography finished allows uniform, stable performance.
- Excellent shock resistance and environmental capability.
- Capable of covering low-frequency range from 20 kHz to 165 kHz.
- Suitable for time keeping of clock and microcomputer.

Part No.	Product No.	Manufacturer	Description	Frequency(MHz)	Load capacitance(pF)	Can Style	±ppm
16913	MC-405-32.768K	SII(SEIKO)	SMD Quartz Crystal	32.768KHz	0.85	MC-405	30ppm

