

Quartz Crystal Units

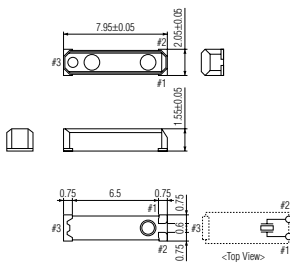
155SMX

STANDARD 32.768 kHz SMD CRYSTALS

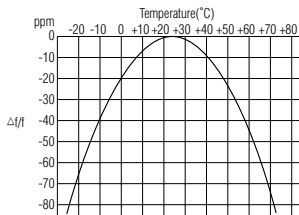
155SMX



155SMX

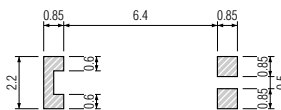


XY-CUT



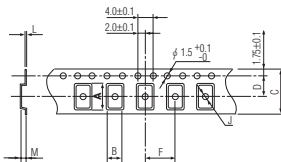
TYPICAL TEMPERATURE CHARACTERISTICS

SOLDERING PATTERN



(※) #3 to be floating or open.

TAPE SPECIFICATIONS



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
8.2	3222	16.0	7.5	4.0	—	0.3	1.8	330	3000pcs

STANDARD SPECIFICATIONS

Item	Symbol	Specifications
Part number	P/N	155M327
Package type		155SMX
Nominal frequency	F	32.768 kHz
Frequency tolerance at +25°C	$\Delta f/F$	AA : ± 10 ppm A : ± 15 ppm B : ± 20 ppm C : ± 30 ppm standard D : ± 50 ppm
Load capacitance	CL	12.5 pF : 155M327 7.0 pF : 155M327-7
Equivalent series resistance	ESR	55 k Ω max.
Drive level	P	0.1 μ W (1.0 μ W max.)
Turnover temperature	Tt	+25°C ± 5 °C
Temperature coefficient	β	-0.035 ppm/°C ² , Typical
Quality factor	Q	50000, Typical
Shunt capacitance	C ₀	0.95 pF, Typical
Motional capacitance	C ₁	0.0022 pF, Typical
Capacitance ratio	γ	430, Typical
Aging (for first year)	$\Delta f/F$	± 3 ppm max. at +25°C ± 3 °C
Insulation resistance	R _i	500M Ω min. at 100V DC ± 15 V
Cut		XY-Cut
Operating temperature range	T _o	-40°C to +85°C
Storage temperature range	T _s	-55°C to +125°C
Shock resistance	$\Delta f/F$	± 5 ppm max.
Vibration resistance	$\Delta f/F$	± 5 ppm max.
IR reflow resistance	$\Delta f/F$	± 5 ppm max.
Reflow condition		10 seconds max. at +250°C ± 10 °C (2 times)

(※) No pattern path underneath the 155SMX

PACKAGE DATA

Item	Package	155SMX
Outer Package		Silicon mold
Sealing		Press-fit (1.5×5mm built-in)
Terminal		Phosphor bronze
Terminal plating		Gold / Nickel (surface) / (under)
RoHS		Compliant