

XTAL

CLK OSC

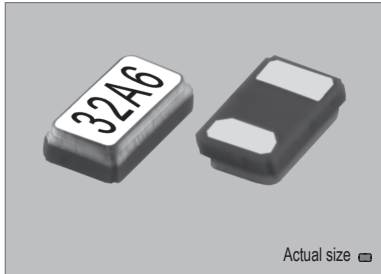
VCXO

TCXO

OCXO

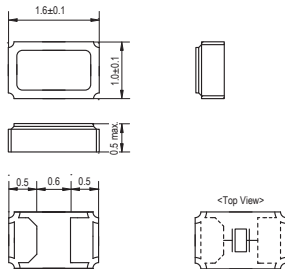
MCF

110SMX

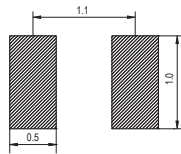


0.003 gm (wt.)

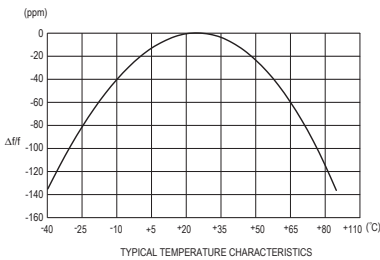
110SMX



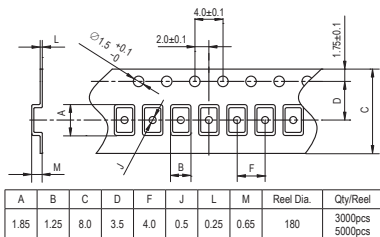
SOLDERING PATTERN



XY-CUT



TAPE SPECIFICATIONS



STANDARD SPECIFICATIONS

Item	Symbol	Specifications
Part number	P/N	110M327*
Package type		110SMX
Nominal frequency	F	32.768 kHz
Frequency tolerance (at +25°C)	Δf/F	AA : ±10 ppm A : ±15 ppm B : ±20 ppm C : ±30 ppm (Standard)
Load capacitance	CL	12.5 pF : 110M327 (Standard) 9.0 pF : 110M327-9 7.0 pF : 110M327-7
Equivalent series resistance	ESR	90 kΩ max.
Drive level	P	0.1 μW (0.5 μW for max.)
Turnover temperature	Tt	+25°C ±5°C
Temperature coefficient	β	-0.035 ppm / °C <sup>2</sup> , Typical.
Aging (for first year)	Δf/F	±3 ppm max. at +25°C ±3°C
Insulation resistance	Ri	500 MΩ min. at 100V DC ±15V
Cut		XY-Cut
Operating temperature range	To	-40°C to +85°C
Storage temperature range	Ts	-55°C to +125°C
Shock resistance	Δf/F	±5 ppm max.
Vibration resistance	Δf/F	±5 ppm max.
IR reflow resistance	Δf/F	±10 ppm max.
Reflow condition		10 seconds max. at +250°C ±10°C

(\* ) No pattern path underneath the 110SMX

PACKAGE DATA

Item	Package	110SMX
Lid		Metal
Base		Ceramic
Sealing		Seam
Terminal		Tungsten (metalized)
Terminal plating		Gold / Nickel (surface) / (under)
RoHS		Compliant (Pb-free)