

SURFACE MOUNT CERAMIC RESONATOR

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SMR-4.000-A

• ELECTRICAL SPECIFICATIONS

PARAMETER	VALUE
NOMINAL FREQUENCY	4.000 MHz
FREQUENCY TOLERANCE AT 25°C	±0.5% max
FREQUENCY STABILITY OVER TEMPERATURE	±0.3% max
OPERATING TEMPERATURE RANGE	-20°C to +80°C
STORAGE TEMPERATURE RANGE	-30°C to +85°C
AGING OVER 10 YEARS	±0.3% max
RESONANT IMPEDANCE	30 Ω max
EXTERNAL CAPACITANCE (C1=C2)	33pF
INPUT SIGNAL VOLTAGE	15 Vp-p AC
INPUT VOLTAGE AT 5 sec	50 VDC max
INSULATION RESISTANCE	130 MΩ min

MECHANICAL SPECIFICATION





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REFLOW PROFILE

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Reflow profile		
Temperature Min Preheat	T _{SMIN}	140°C
Temperature Max Preheat	T _{SMAX}	160°C
Time (T _{SMIN} to T _{SMAX})	ts	60-180 sec.
Temperature	TL	200°C
Peak Temperature	T _P	260°C max
Ramp-up rate	RUP	3°C/sec max.
Ramp-down rate	RDOWN	6°C/sec max.
Time within 5°C of Peak Temperature	tP	10 sec.
Time t[25°C] to Peak Temperature	t[25°C] to Peak	480 sec.
Time	t∟	20-40 sec.

ENVIRONMENTAL

PARAMETER	VALUE
MOISTURE SENSITIVITY LEVEL	1
RoHS	Compliant
REACH SVHC	Compliant
HALOGEN-FREE	Compliant
ESD CLASSIFICATION LEVEL	N/A
TERMINATION FINISH	Sn



APPROVAL

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