

CRYSTAL OSCILLATORS Automotive Grade



SMAF-221 SERIES

CERAMIC PACKAGE

Applications

- Camera
- TPMS
- AVM

Features

- Seam Seal
- RoHS Compliant
- Excellent Solderability
- IATF-16949 Certified
- Tri-State
- AEC-Q200 Qualified

Actual Size:

Low Power Consumption

Specification

MODEL

MODEL						
FREQUENCY RANGE	MHz	2.000 ~ 50.000				
FREQUENCY STABILITY*	ppm	± 25 ~ ± 100				
OPERATING TEMPERATURE	°C	- 40 ~ + 85 Or - 40 ~ + 125				
STORAGE TEMPERATURE	°C	- 55 ~ + 150				
POWER SUPPLY VOLTAGE	VDC	+1.8 ± 5%	+2.5 ± 5%	+3.3 ± 10%	+1.62 ~ +3.63	
OUTPUT LEVEL			CM	IOS		
OUTPUT SYMMETRY**	%	40 ~ 60 (at 50% VDC)				
INPUT CURRENT						
2.0 ~ 9.9MHz		3	6	7	7	
10.0 ~ 19.9MHz	mA	5	7	7	8	
20.0 ~ 31.9MHz	(Max.)	5	8	12	12	
32.0 ~ 50.0MHz		10	20	20	20	
RISE/FALL TIME						
2.0 ~ 9.9MHz		5	7	6	7	
10.0 ~ 19.9MHz	ns	5	7	6	7	
20.0 ~ 31.9MHz	(Max.)	5	6	5	6	
32.0 ~ 50.0MHz		5	6	5	6	
OUTPUT LOAD		15 pF Max.				
AGING	ppm/Year	±3				

^{*}Inclusive of 25°C±3°C & Operating Temperature Range.

Pin Connection

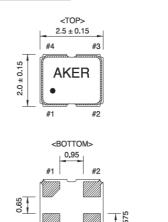
PIN No.	Connection	
#1	Enable/Disable	
#2	GND	
#3	Output	
#4	VDC	

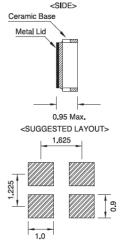
Enable/Disable Function

Pin #1	Pin #3
HIGH(OPEN)	Output
LOW	High Impedance

Dimension(mm)

SMAF-221





^{**}Symmetry of 45~55% is available.

^{***}Specification subject to change without notice.