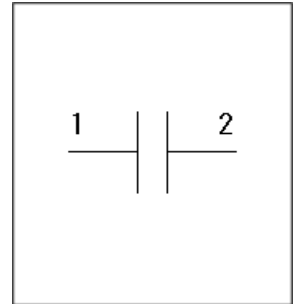


# ADS Model

## Ceramic Capacitor

### MURATA

### DE2E3SA222MN3AT02F



### Model Information

**Model** An original macro model  
**Call Name** MDC\_DE2E3SA222MN3AT02F\_AD  
**Pin Assign** 1:1 2:2  
**File List** Model Library MDC\_DE2E3SA222MN3AT02F\_AD01.lib  
 Model Report MDC\_DE2E3SA222MN3AT02F\_AD.pdf (this file)

**Verified Simulator Version** ADS version 2016  
**Note**

### References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version Unknown
- Product name DE2E3SA222MN3AT02F
- Company name Murata Manufacturing Co., Ltd.
- Characteristics CapVf[Freq],CapTemp[Vf],CapVac[Freq],CapFreq[Vf],ImpedanceFreq[Vf],ESRFreq[Vf],InductanceFreq[Vf]

### Simulation Range

This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Temperature	-25	to	85	deg C

Capacitor

○ : Implemented  
 × : Not Implemented  
 — : Not applicable

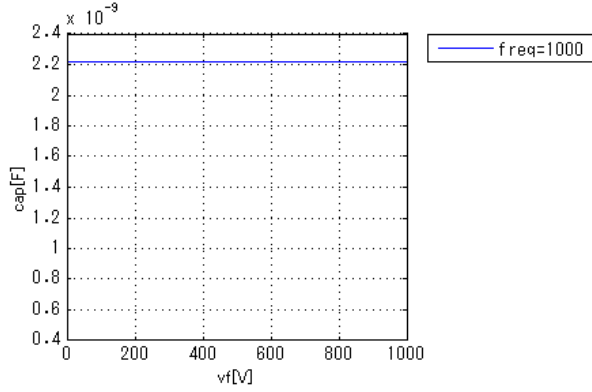
Model Functions Table

RANK=1

Functions	RANK	Implemented
Impedance-Frequency	1	○
ESR-Frequency	1	○
Capacitance-Frequency	1	○
Inductance-Frequency	1	○
Capacitance-Voltage	1	○
Capacitance-Temperature	1	○

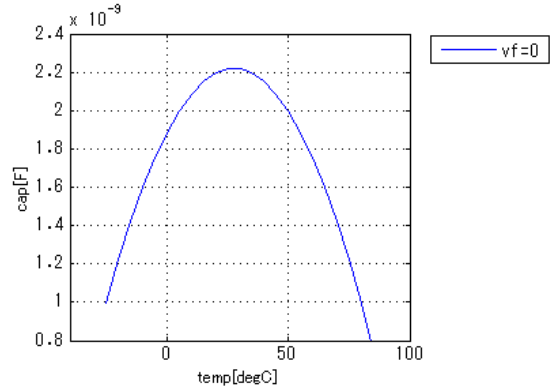
Simulation results are following.  
 Explanatory notes — : simulated

**CapVf[Freq]**



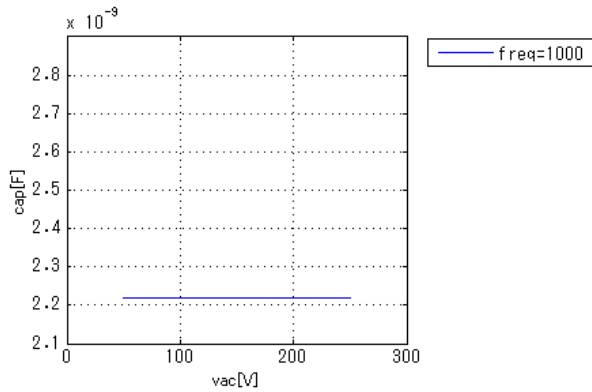
**CapTemp[Vf]**

Freq = 1000Hz



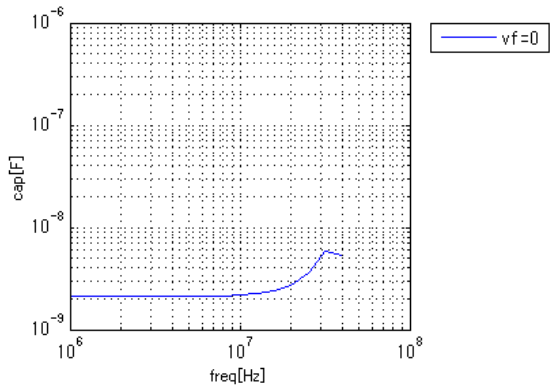
**CapVac[Freq]**

Vf = 0V



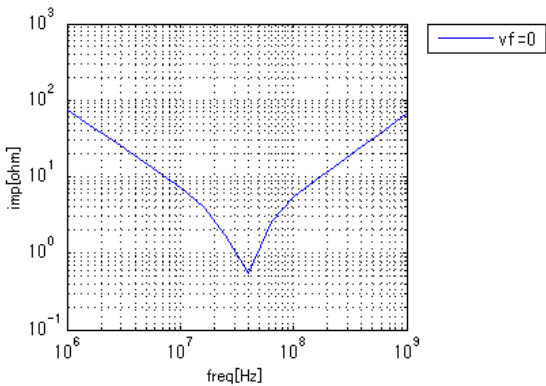
**CapFreq[Vf]**

Temp = 25degC



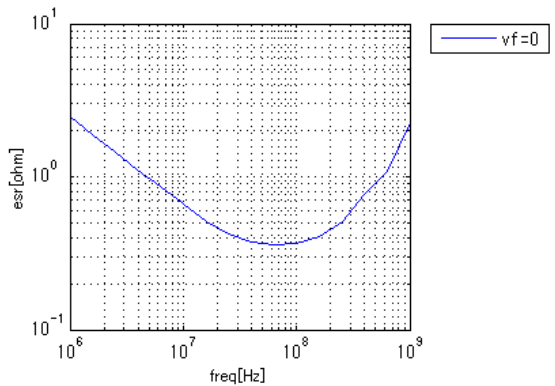
**ImpedanceFreq[Vf]**

temp = 25degC



**ESRFreq[Vf]**

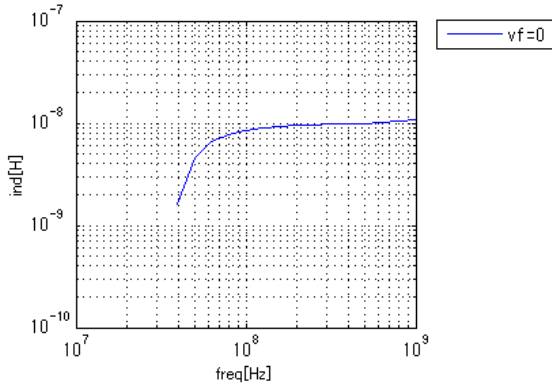
temp = 25degC



Simulation results are following.  
Explanatory notes — : simulated

**InductanceFreq[Vf]**

temp = 25degC



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