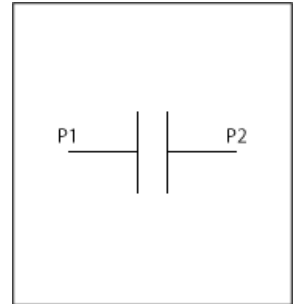


# PSpice Model

## Film Capacitor

### NISSEI

### MPXC0450J2250000P045



#### Model Information

**Model** An original macro model  
**Call Name** MDC\_MPXC0450J2250000P045\_PS  
**Pin Assign** 1:P1 2:P2  
**File List** Model Library MDC\_MPXC0450J2250000P045\_PS01.lib  
 Model Report MDC\_MPXC0450J2250000P045\_PS.pdf (this file)

**Verified Simulator Version** PSpice version 17.2  
**Note**

#### References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version March 1, 2012
- Product name MPXC0450J2250000P045
- Company name NISSEI Electric Co., Ltd.
- Characteristics CapVf, CapTemp[Vf], CapVac, ImpedanceFreq[Vf], ESRFreq[Vf], InductanceFreq[Vf], CapFreq[Vf], ResistanceVf[Temp]

#### 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	-40	to	105	deg C

Capacitor

○ : Implemented  
 × : Not Implemented  
 — : Not applicable

Model Functions Table

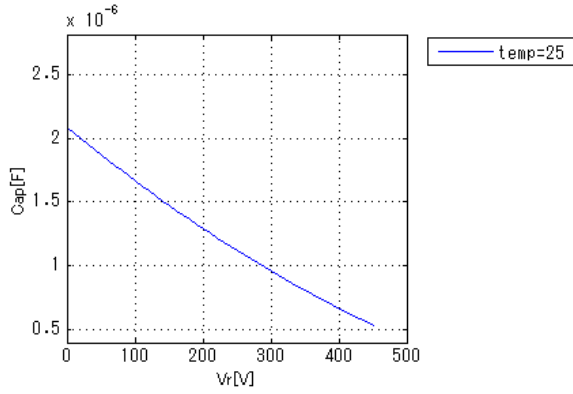
RANK=1

Functions	RANK	Implemented
Impedance-Frequency	1	○
ESR-Frequecy	1	○
Capacitance-Frequency	1	○
Inductance-Frequency	1	○
Capacitance-Voltage	1	○
Capacitance-Temp	1	○
Capacitance-Vac	1	○
Resistance-Voltage	1	○

Simulation results are following.  
 Explanatory notes — : simulated

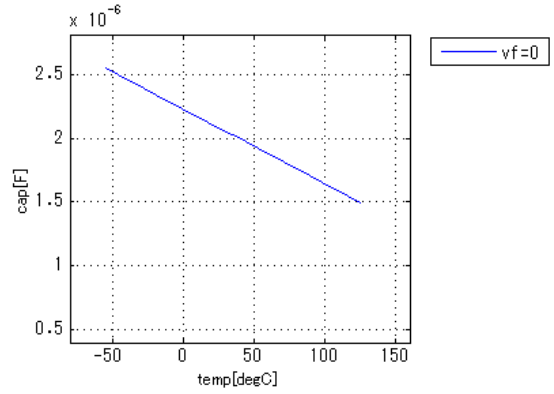
**CapVf**

Freq = 1000Hz



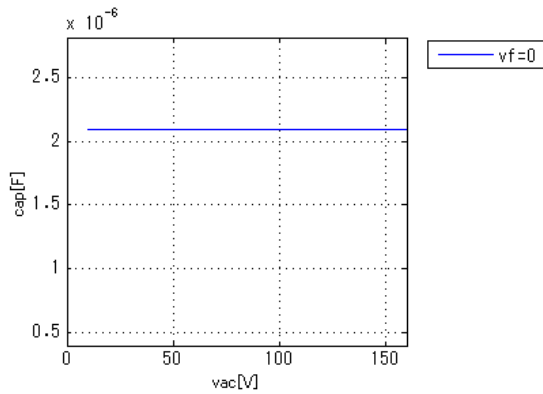
**CapTemp[Vf]**

Freq = 1000Hz



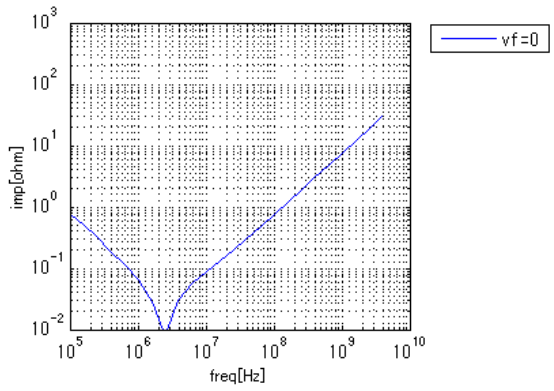
**CapVac**

Freq = 1000Hz, VF = 0V



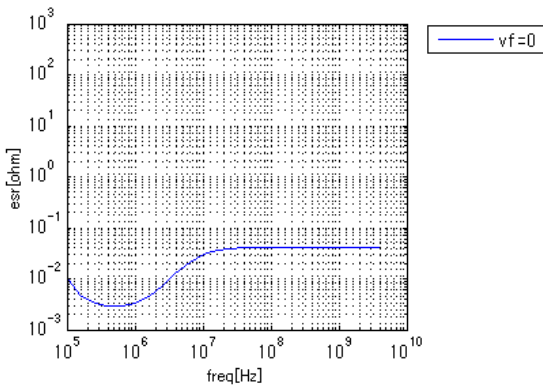
**ImpedanceFreq[Vf]**

temp = 25degC



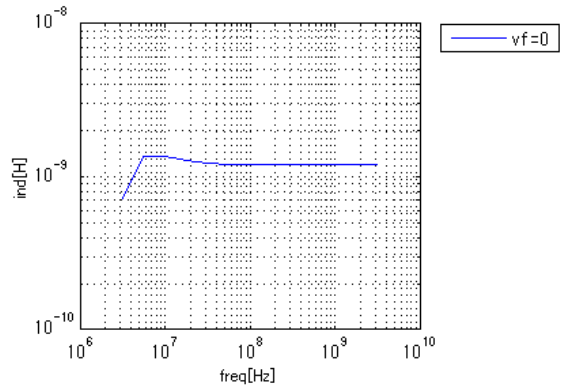
**ESRFreq[Vf]**

temp = 25degC



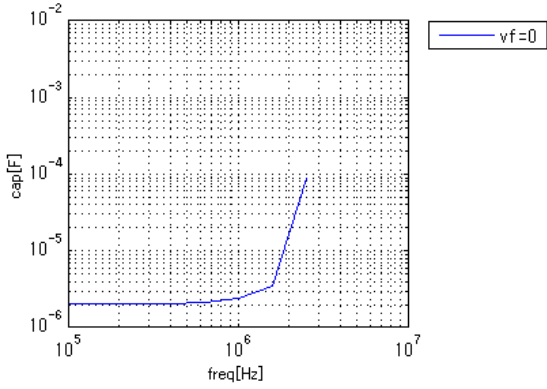
**InductanceFreq[Vf]**

temp = 25degC

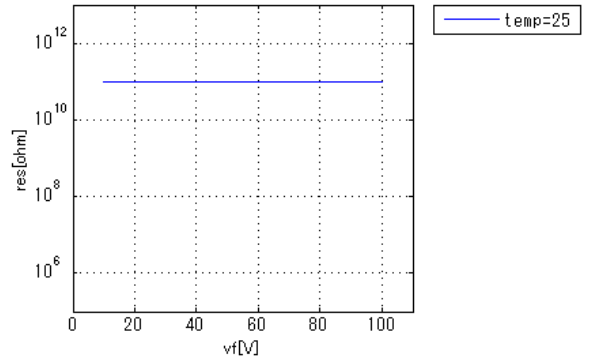


Simulation results are following.  
 Explanatory notes — : simulated

**CapFreq[Vf]**



**ResistanceVf[Temp]**



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