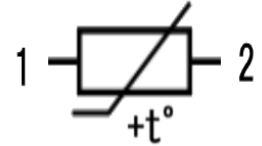


# PSpice Model

## PTC Thermistor

### COPAL

### PRCP-NSMF035/16X-2C



### Model Information

<b>Model</b>	A macro model		
<b>Call Name</b>	MDC_PRCP-NSMF035_16X-2C_PS		
<b>Pin Assign</b>	1:1 2:2		
<b>File List</b>	Model Library	MDC_PRCP-NSMF035_16X-2C_PS01.lib	
	Model Report	MDC_PRCP-NSMF035_16X-2C_PS.pdf (this file)	
<b>Verified Simulator Version</b>	PSpice version 17.2		
<b>Note</b>			

### References

The information which was used for modeling is as follow:

[Data Sheet]

●Date/Version	Unknown
●Product name	PRCP-NSMF035/16X-2C
●Company name	NIDEC COPAL CORPORATION
●Characteristics	ResTemp[I <sub>f</sub> ],I <sub>f</sub> V <sub>f</sub> [Temp],TripCurrentWaveform

### 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	85	deg C

# Thermistor

○ : Implemented  
 × : Not Implemented  
 — : Not applicable

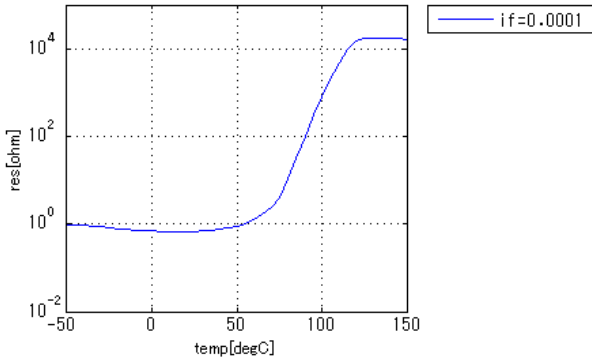
**Model Functions Table**
**RANK=1**

Functions	RANK	Implemented
Resistance-Temperature	1	○
Current-Voltage	1	○
Thermal time constant	1	○

Simulation results are following.  
 Explanatory notes — : simulated

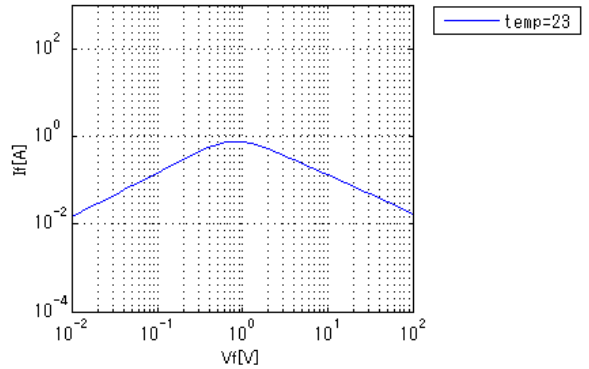
**ResTemp[If]**

R Min = 0.3ohm R1 Max = 1.4ohm ( at 23degC )



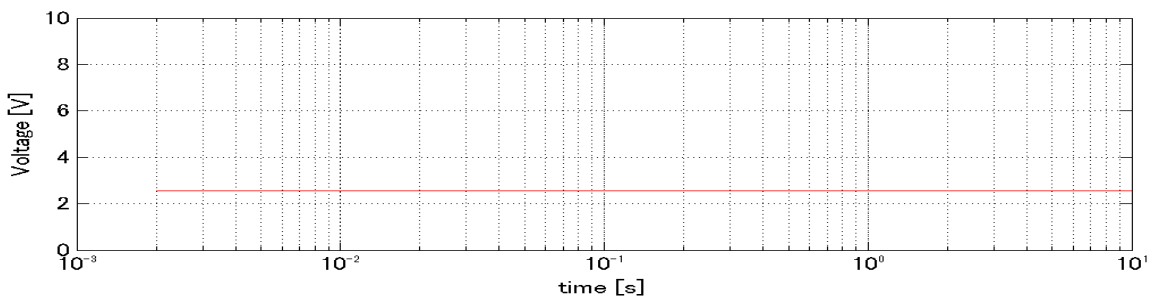
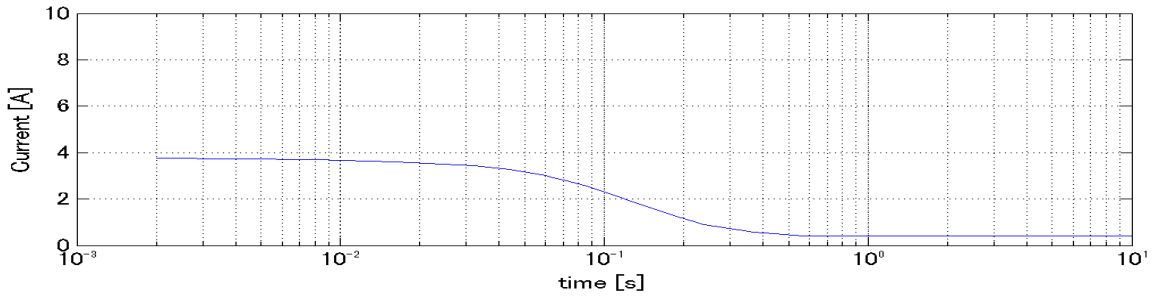
**IfVf[Temp]**

Itrip = 0.75A ( at 23degC )



**Trip Current Waveform**

Current = 3.5A, Trip Time = 0.14sec ( at Current\*1/2 )



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