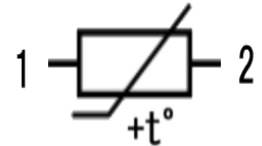


# LTspice Model

## PTC Thermistor

### COPAL

### PRCP-NSMF150-2E



### Model Information

**Model** A macro model  
**Call Name** MDC\_PRCP-NSMF150-2E\_LT  
**Pin Assign** 1:1 2:2  
**File List** Model Library MDC\_PRCP-NSMF150-2E\_LT01.lib  
 Model Report MDC\_PRCP-NSMF150-2E\_LT.pdf (this file)  
**Verified Simulator Version** LTspice version XVII  
**Note**

### References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version Unknown
- Product name PRCP-NSMF150-2E
- 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**

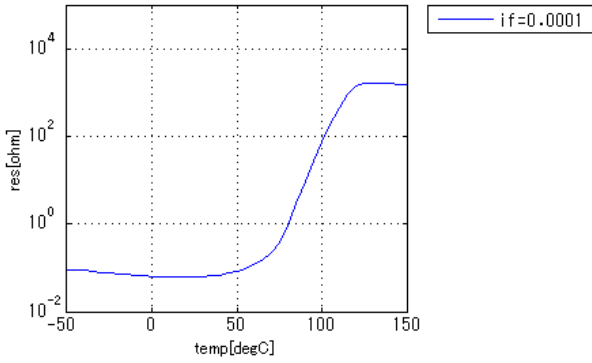
**RANK=1**

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

Simulation results are following.  
 Explanatory notes — : simulated

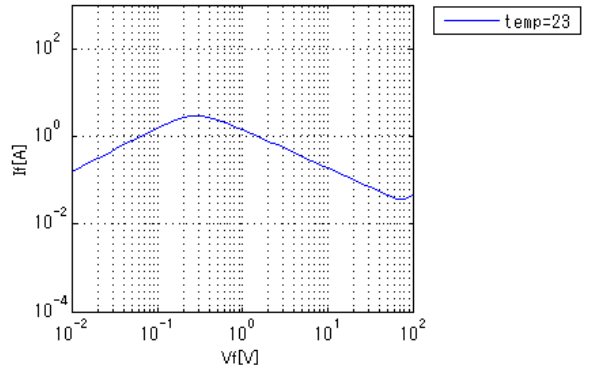
**ResTemp[If]**

R Min = 0.03ohm R1 Max = 0.13ohm ( at 23degC )



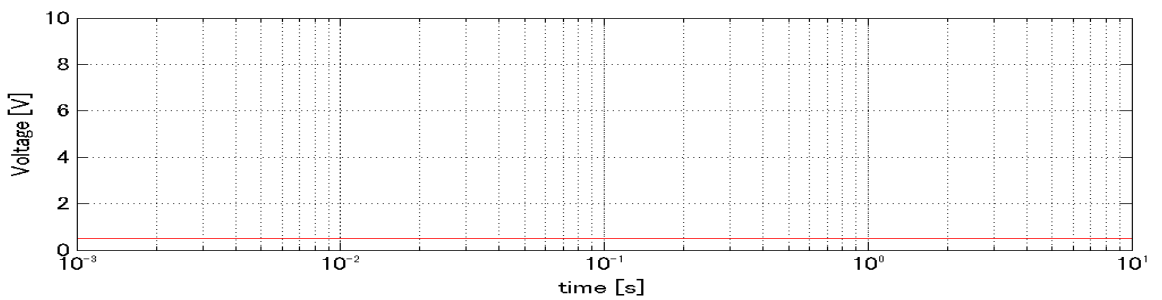
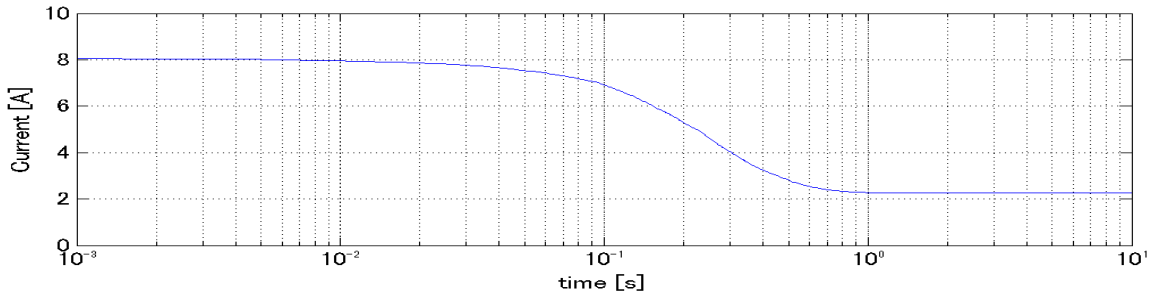
**IfVf[Temp]**

Itrip = 3.0A ( at 23degC )



**Trip Current Waveform**

Current = 8.0A, Trip Time = 0.30sec ( at Current\*1/2 )



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MoDeCH Inc.

Head Office

Location: 5-15 Yokoyama-cho, Hachioji-Shi, Tokyo 192-0081, Japan

Tel:+81-42-656-3360

E-Mail:[model-on-support@modech.co.jp](mailto:model-on-support@modech.co.jp)

URL:<http://www.modech.com/en/>