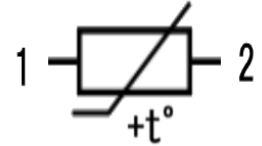


PSpice Model

PTC Thermistor

COPAL

PRCP-USMF075-2E



Model Information

Model A macro model
Call Name MDC_PRCP-USMF075-2E_PS
Pin Assign 1:1 2:2
File List Model Library MDC_PRCP-USMF075-2E_PS01.lib
 Model Report MDC_PRCP-USMF075-2E_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 Unknown
- Product name PRCP-USMF075-2E
- Company name NIDEC COPAL CORPORATION
- Characteristics ResTemp[I_f], I_fV_f[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.	to	Max.	
Temperature	-40	to	85	deg C

Thermistor

○ : Implemented
 × : Not Implemented
 — : Not applicable

Model Functions Table

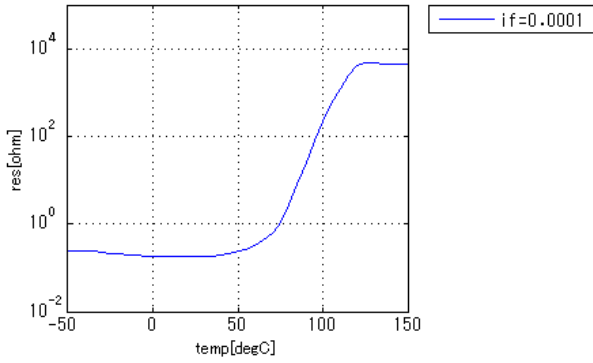
RANK=1

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

Simulation results are following.
 Explanatory notes — : simulated

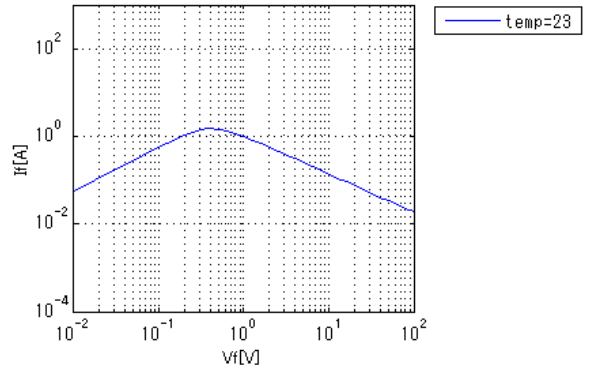
ResTemp[If]

R Min = 0.07ohm R1 Max = 0.45ohm (at 23degC)



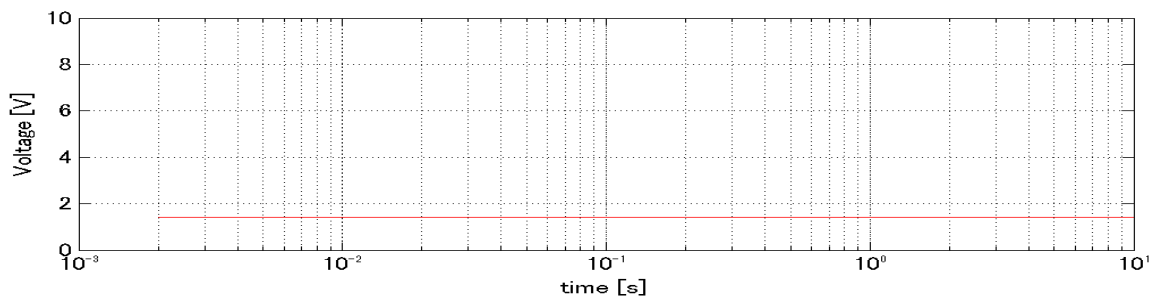
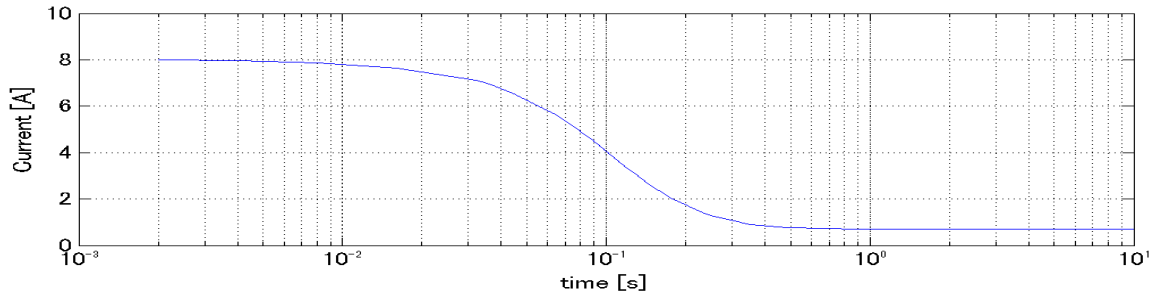
IfVf[Temp]

Itrip = 1.5A (at 23degC)



Trip Current Waveform

Current = 8.0A, Trip Time = 0.1sec (at Current*1/2)



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