

LTspice Model

PTC Thermistor

COPAL

PRCP-NSMF020-2E



Model Information

Model An original macro model
Call Name MDC_PRCP-NSMF020-2E_LT
Pin Assign 1:1 2:2
File List Model Library MDC_PRCP-NSMF020-2E_LT01.lib
 Model Report MDC_PRCP-NSMF020-2E_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-NSMF020-2E
- Company name NIDEC COPAL CORPORATION
- Characteristics ResTemp[I_f], I_fV_f[Temp], TripTimeWaveform

Simulation Range

This table shows the range of evaluated simulation range that was not occur 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

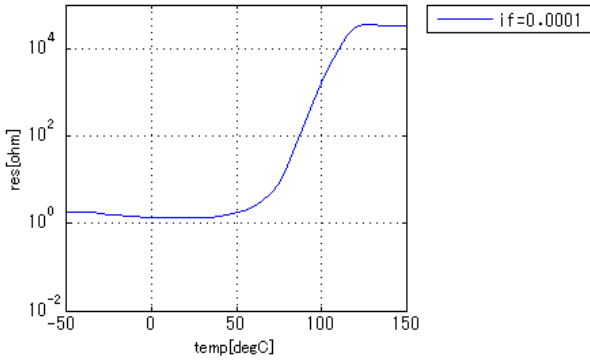
RANK=1

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

Simulation results are following.
 Explanatory notes — : simulated

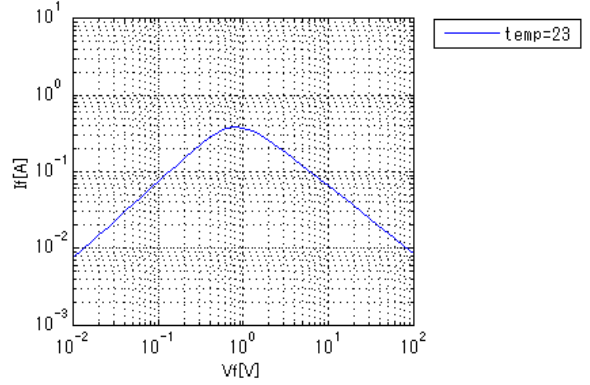
ResTemp[If]

(Rmin=0.60ohm Rmax1=2.60ohm at Temp=23degC)



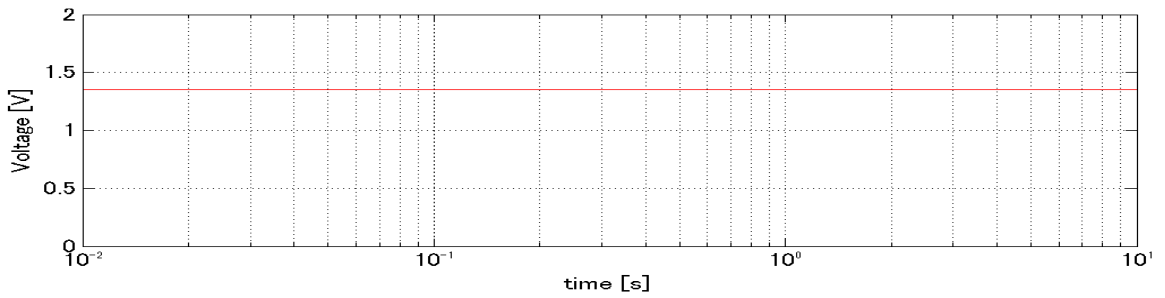
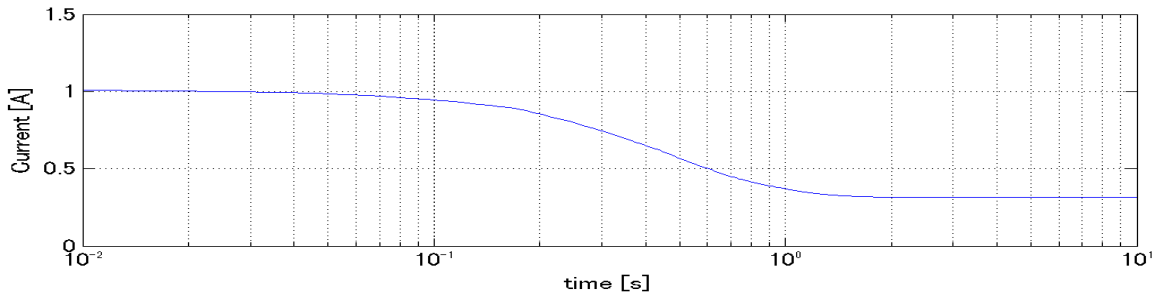
IfVf[Temp]

(Trip Current=0.46A)



Trip Current Waveform

Current=1.0A, Trip Time = 0.60sec (at Current*1/2)



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