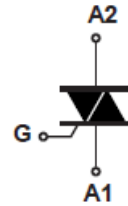
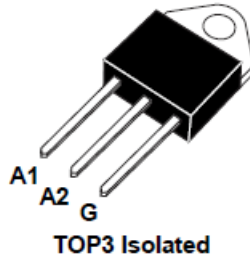


## LTspice Model Triac STM BTA41-600B



### Model Information

<b>Model</b>	A macro model		
<b>Call Name</b>	MDC_BTA41-600B_LT		
<b>Pin Assign</b>	1:A1 2:A2 3:G		
<b>File List</b>	Model Library	MDC_BTA41-600B_LT01.lib	
	Model Report	MDC_BTA41-600B_LT.pdf (this file)	
<b>Verified Simulator Version</b>	LTspice version XVII		
<b>Note</b>			

### References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version Rev 11
- Product name BTA41-600B
- Company name STMicroelectronics N.V.
- Characteristics ItmVtm[Temp], NormIgtTemp[Pname], NormLatchTemp, Norm HoldTemp

### 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.	
Reverse Voltage	0	to	600	V
Temperature	-40	to	150	deg C

## Thyristor or Triac

○ : Implemented  
× : Not Implemented  
— : Not applicable

Model Functions Table

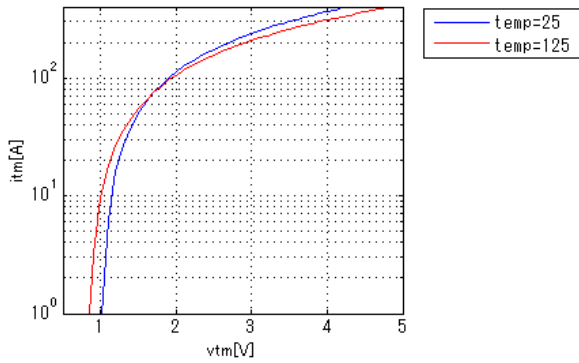
RANK=1

Functions	RANK	Implemented
Itm-Vtm(Temp)	1	○
Igt-Temp	1	○
Vgt-Temp	1	—
Bvover-Temp	1	—
Idrm-Temp	1	—
Latch Hold	1	○
Tgt	1	○

Simulation results are following.  
 Explanatory notes — : simulated

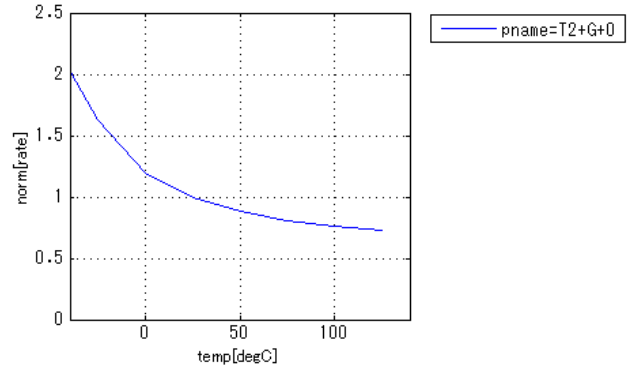
**ItmVtm[Temp]**

vgt = 0.85V



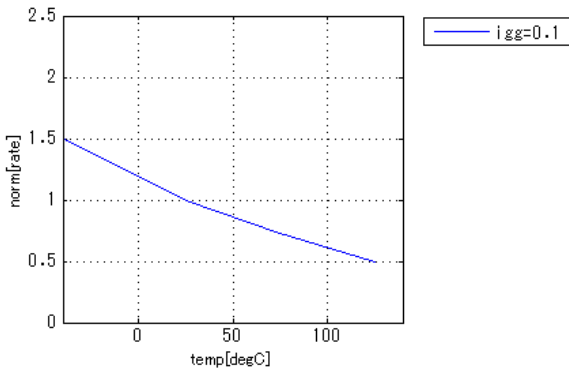
**NormIgtTemp[Pname]**

vgt = 0.85V, vdm = 12V, rg = 0.001ohm, rl = 33ohm



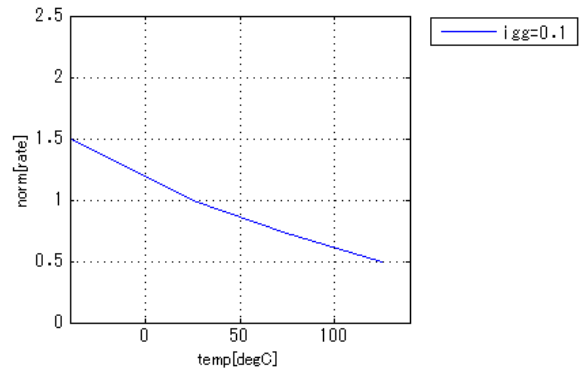
**NormLatchTemp**

vdd = 10V



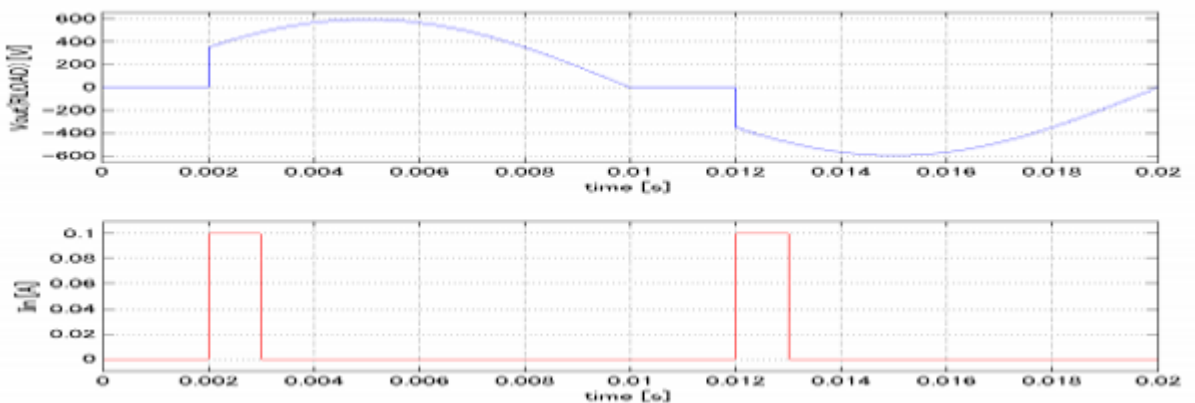
**NormHoldTemp**

vdd = 10V



**Sine waveform (INPUT +)**

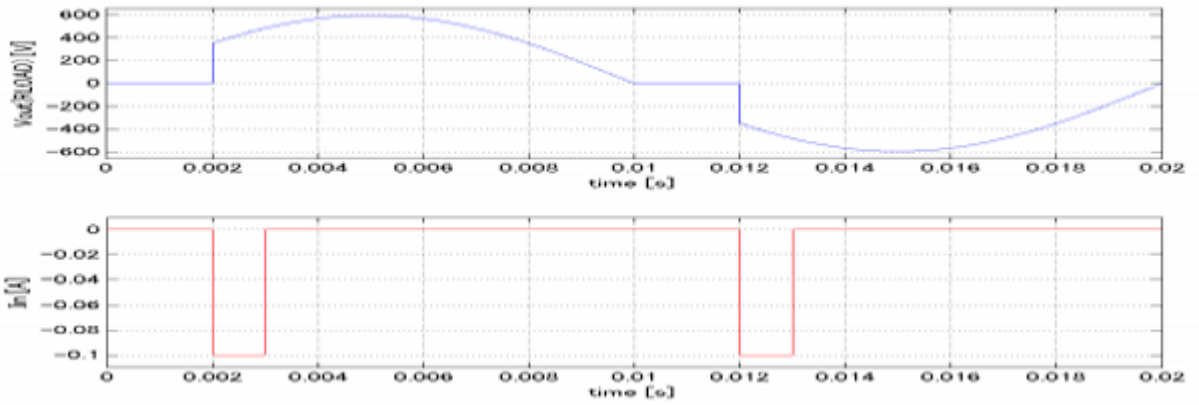
RL = 15 ohm (IA = 40A)



Simulation results are following.  
 Explanatory notes — : simulated

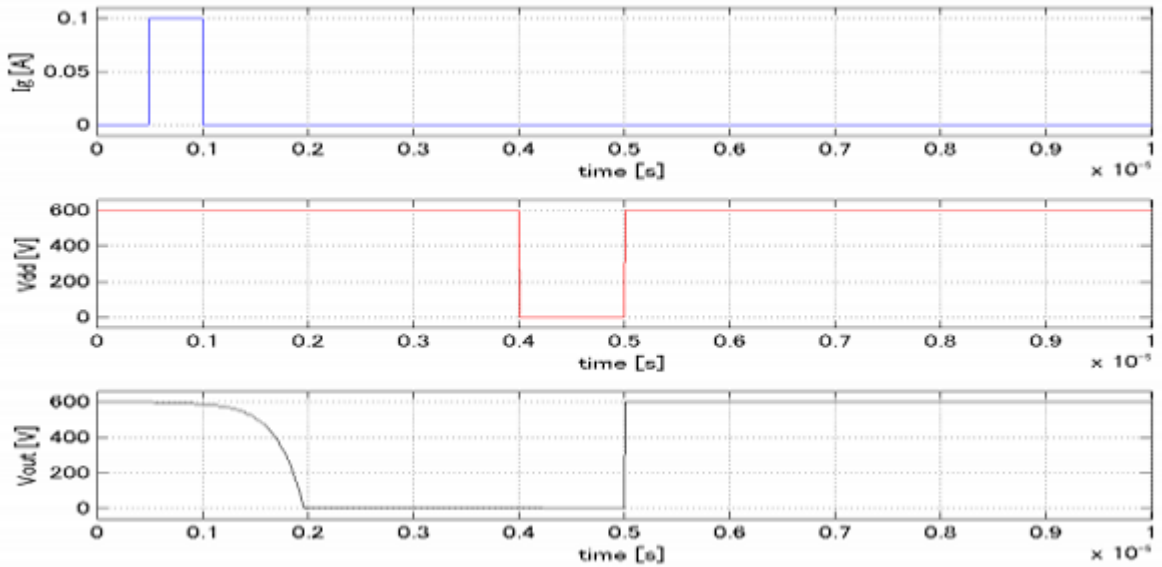
### Sine Waveform (INPUT -)

RL = 15 ohm (IA = 40A)



### Switching Tgt

RL= 30 ohm IA = 20A Tgt = 1.5us



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