

# LTspice Model

## Photo Coupler

### Everlight

### MDC\_EL816X\_LT

#### Model Information

**Model** A macro model  
**Call Name** MDC\_EL816X\_LT  
**Pin Assign** 1:Anode 2:Cathode 3:Emitter 4:Collector  
**File List** Model Library MDC\_EL816X\_LT.lib  
 Model Report MDC\_EL816X\_LT.pdf(this file)  
**Verified Simulator Version** LTspice XVII  
**Note**

#### References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version Nov13,2013. Issue No: DPC-0000009 Rev. 12
- Product name EL816
- Company name Everlight Electronics Co., Ltd.

[Characteristics listed]

- Characteristics
  - IF-VF
  - IC-IF(Normalized)
  - CTR-IF(Normalized)
  - IC-VCE
  - Switching Time-Load Resistance

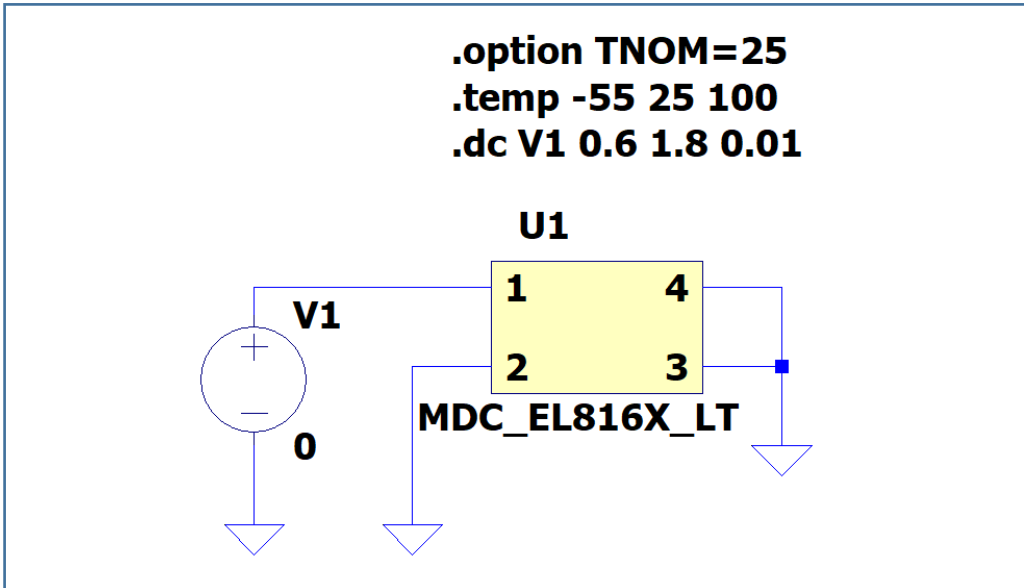
#### Simulation Condition

This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Condition	Unit
Temperature	25	deg C

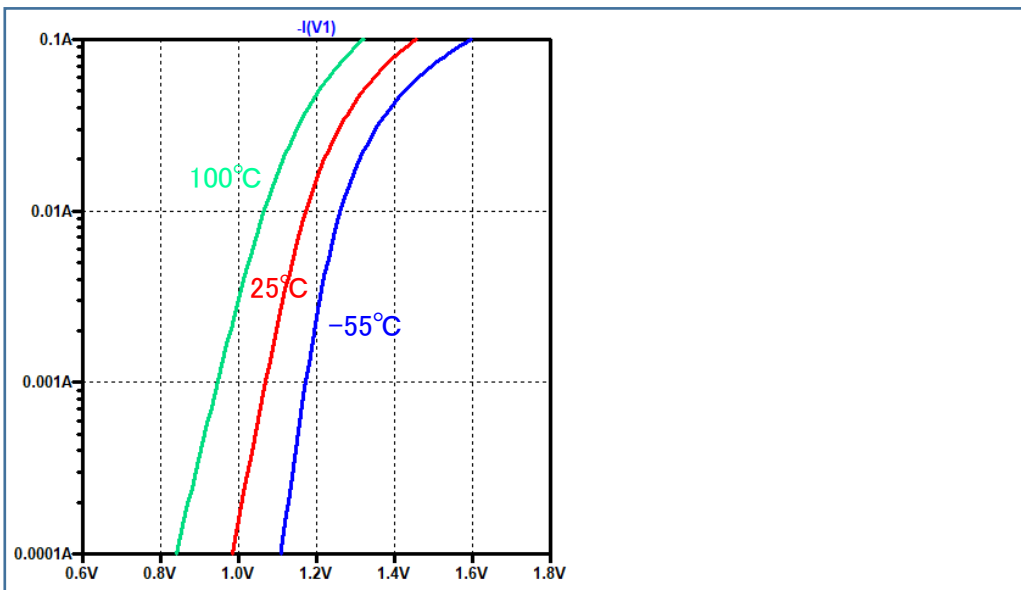
IF-VF

TestBench

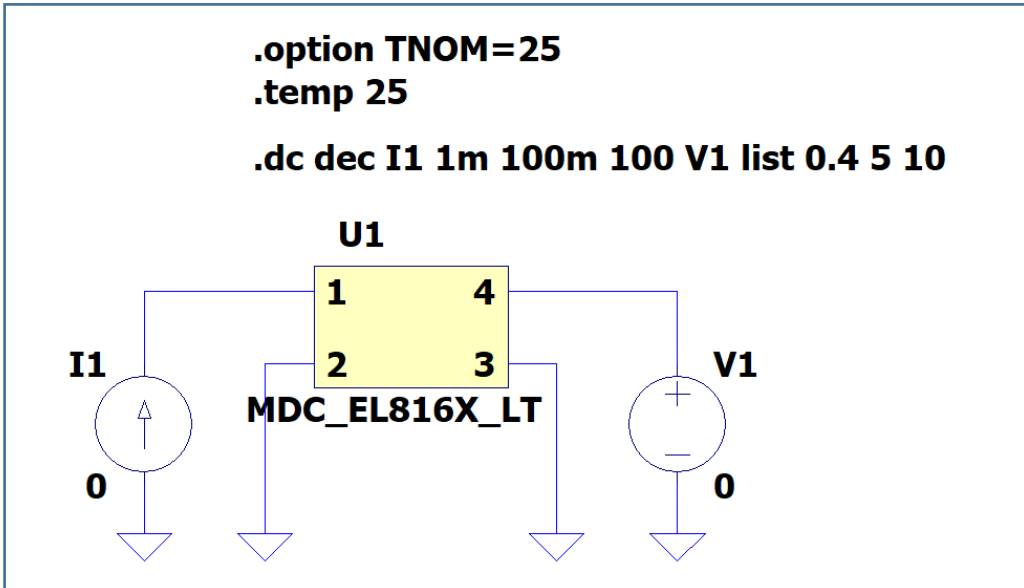


Simulation results are following.

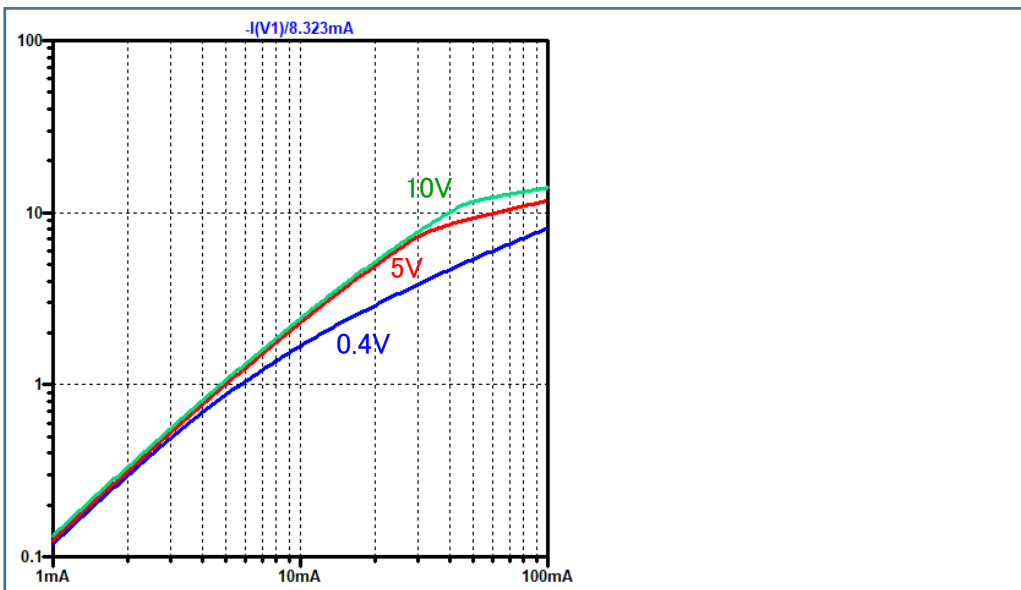
Explanatory notes — : simulated



IC-IF(Normalized)  
TestBench

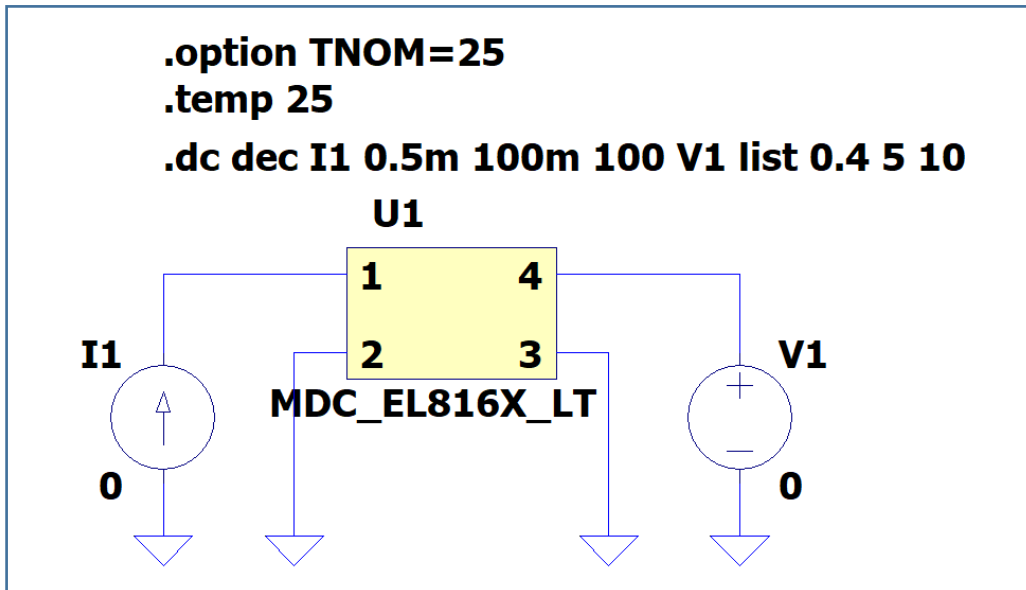


Simulation results are following.  
Explanatory notes — : simulated



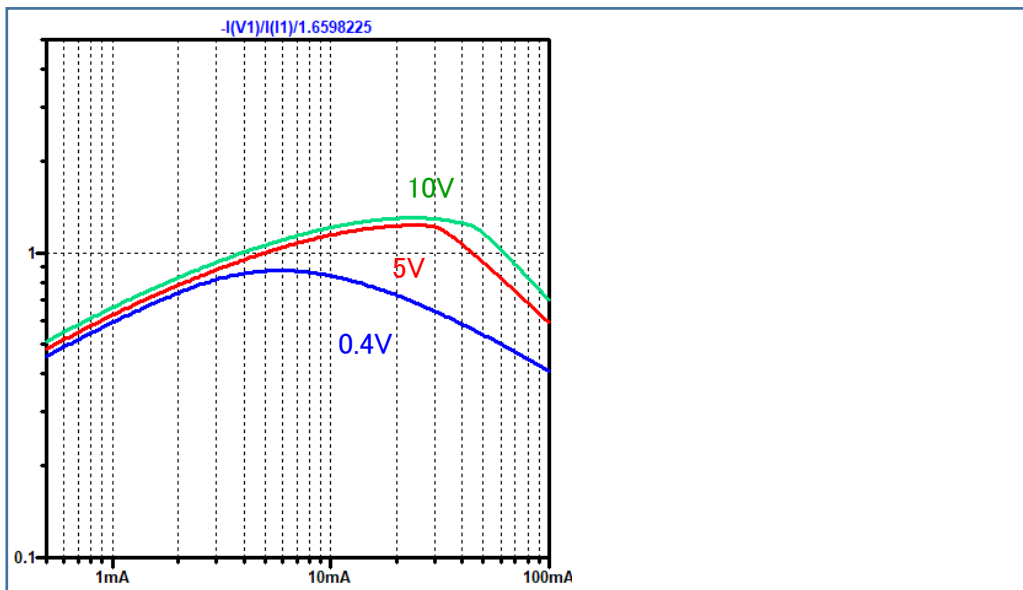
CTR-IF(Normalized)

TestBench



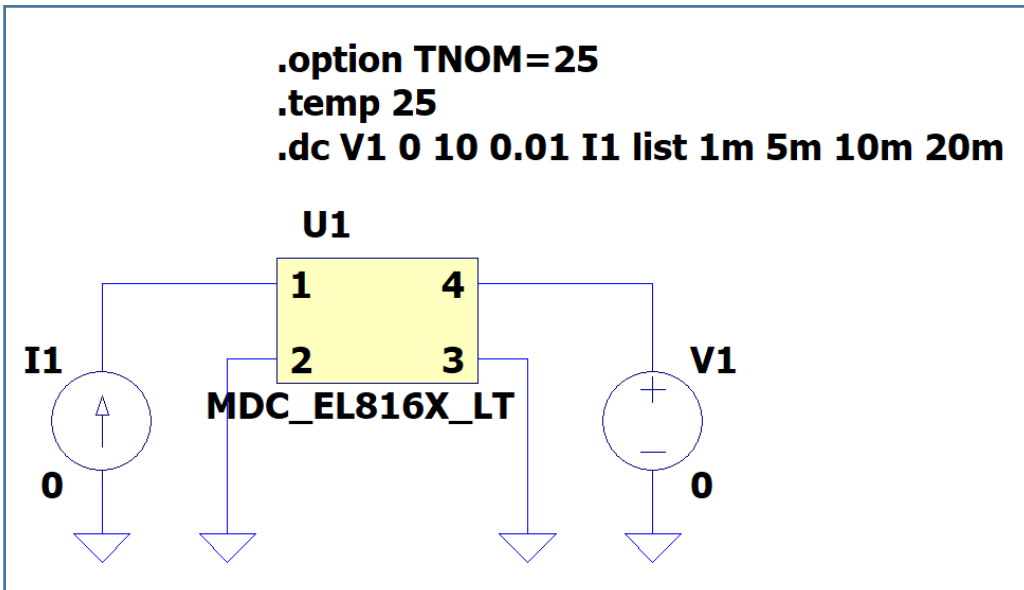
Simulation results are following.

Explanatory notes — : simulated

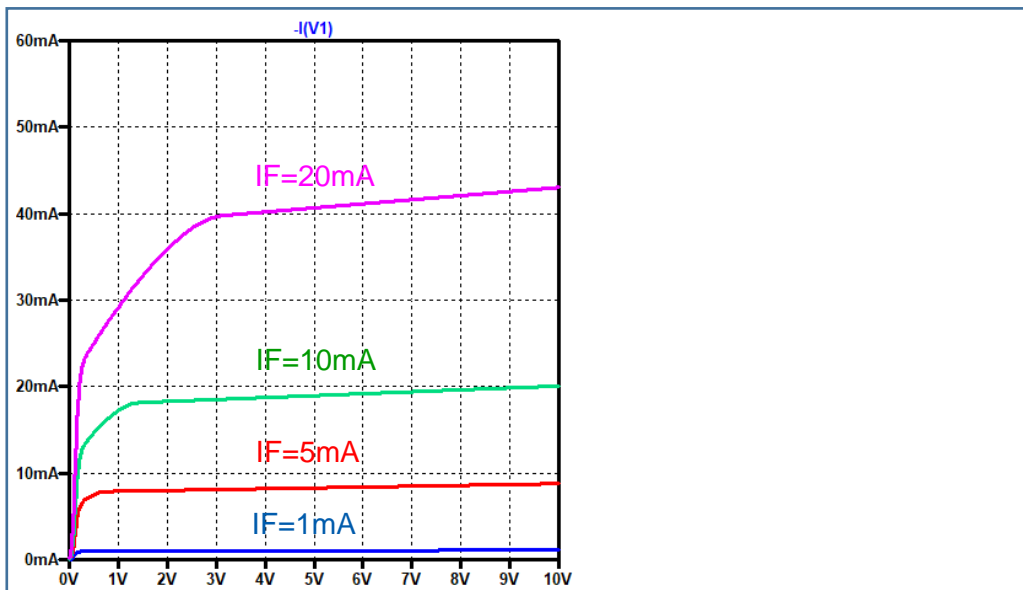


IC-VCE

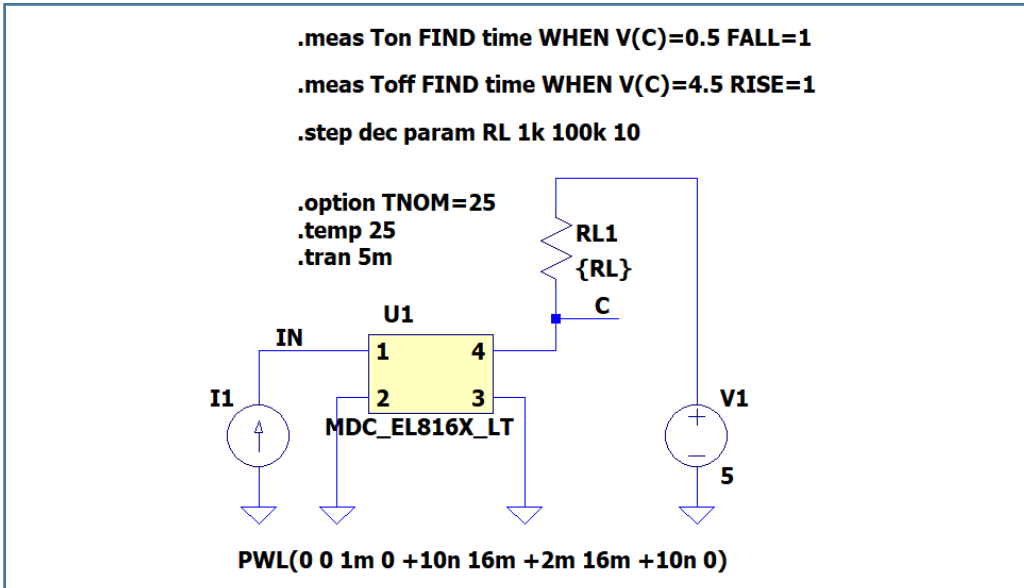
TestBench



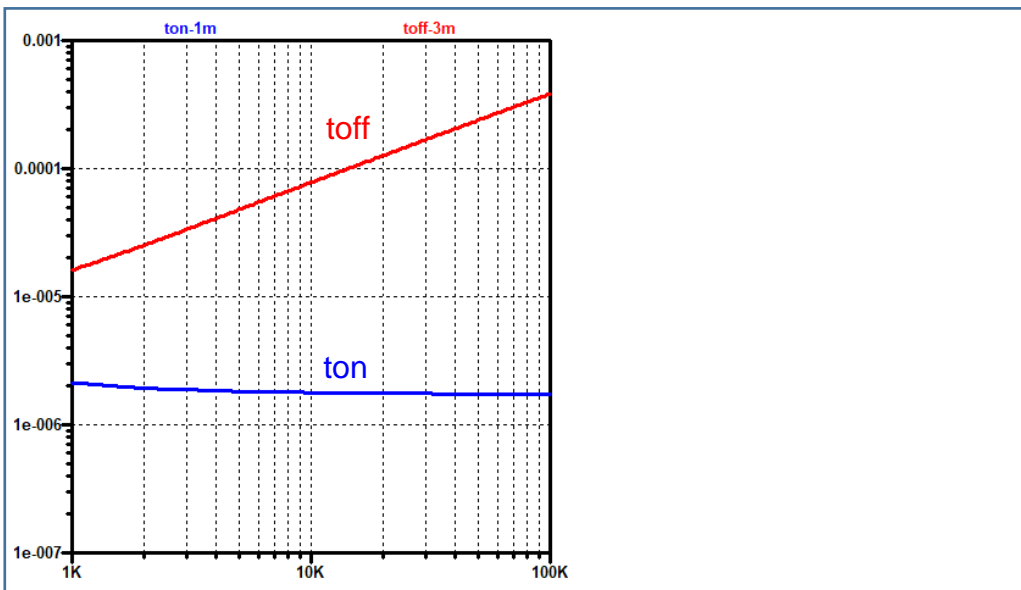
Simulation results are following.  
 Explanatory notes — : simulated



## Switching Time-Load Resistance TestBench



Simulation results are following.  
Explanatory notes — : simulated



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