

# LTspice Model

## High Speed Current Sensor

### AsahiKASEI

### CQ-2065

#### Model Information

**Model** A macro model  
**Call Name** MDC\_CQ-2065\_LT  
**Pin Assign** 1:DATA\_IO 2:VDD 3:VSS 4:VOUT 5:SCLK 6:P 7:N  
**File List** Model Library MDC\_CQ-2065\_LT01.lib  
 Model Report MDC\_CQ-2065\_LT.pdf(this file)  
**Verified Simulator Version** LTspiceXVII

#### Note

#### References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version MS1264-J-05 2013/06
- Product name CQ-2065
- Company name AsahiKASEI

[Characteristics listed]

- Characteristics  $I_{IN}$ - $V_{OUT}$   
 $I_{DD}$   
 $t_r$   $t_f$   
 $f_T$

#### Simulation Condition

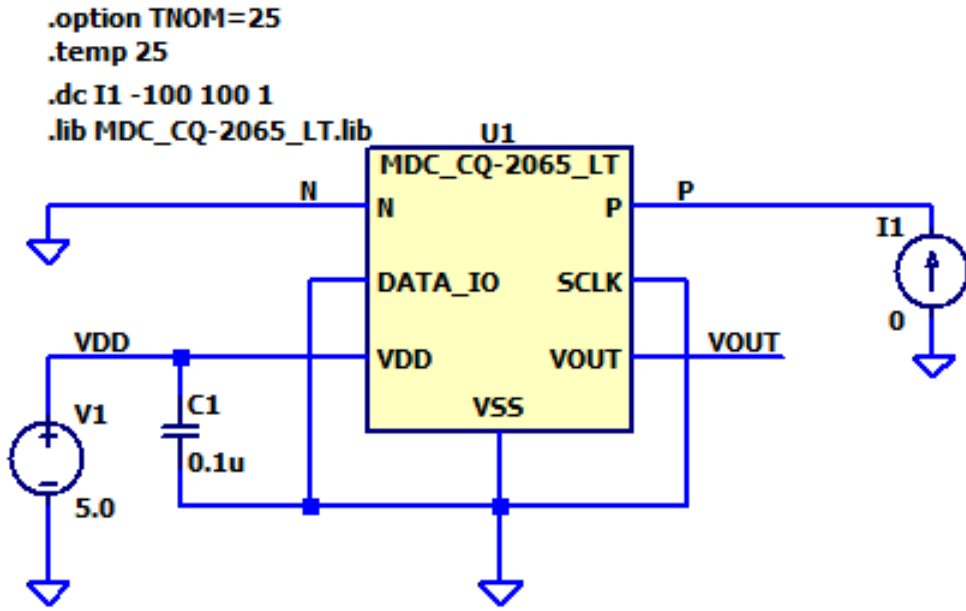
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Condition	Unit
Temperature	25	deg C

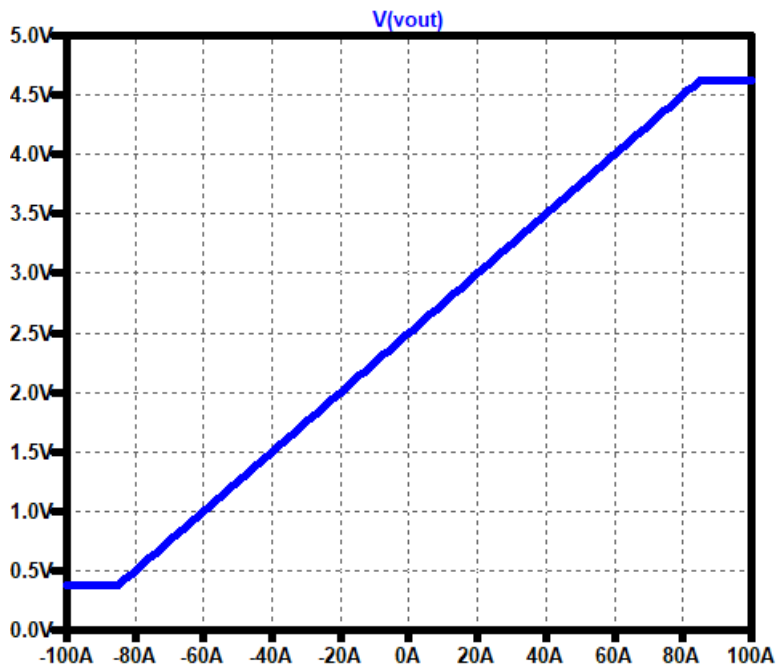
**Model Functions Table**

Functions	Implemented
$V_{OUT}$	<input type="radio"/>
$I_{DD}$	<input type="radio"/>
$t_r t_f$	<input type="radio"/>
$f_T$	<input type="radio"/>

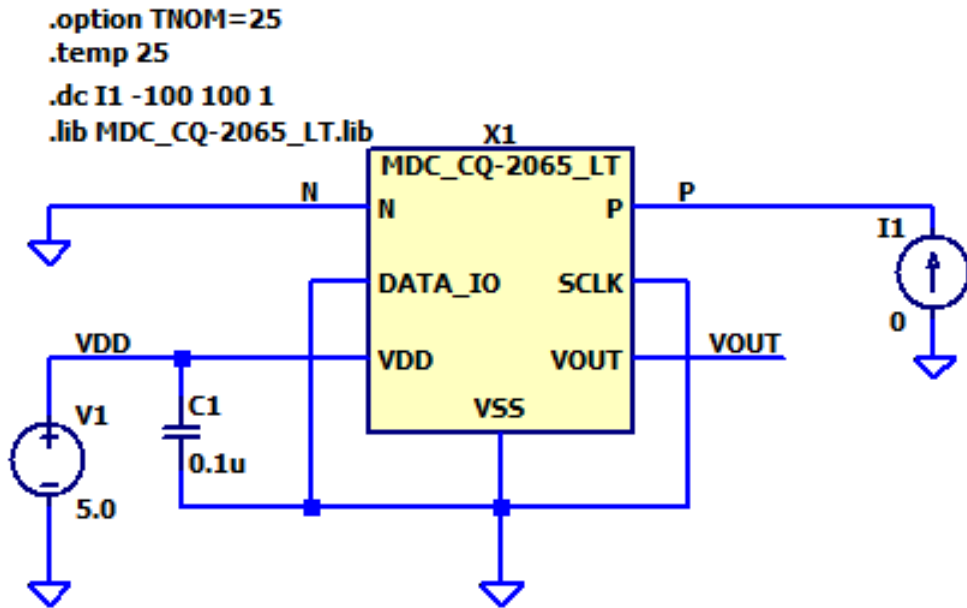
$I_{IN}$ - $V_{OUT}$  TestBench  
 Referred to Data Sheet



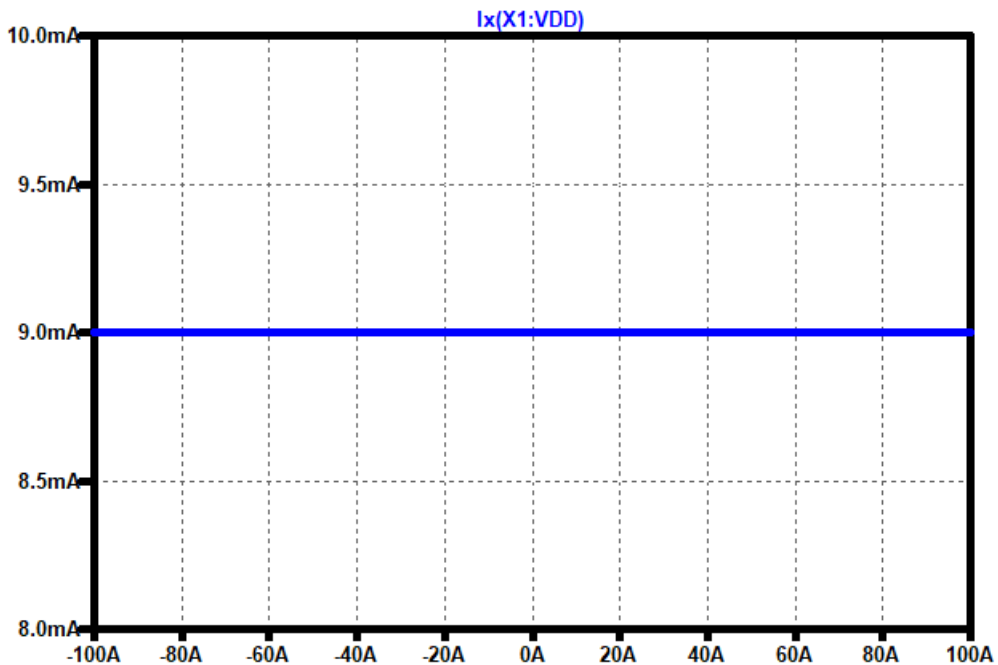
Simulation results are following.  
 Explanatory notes — : simulated



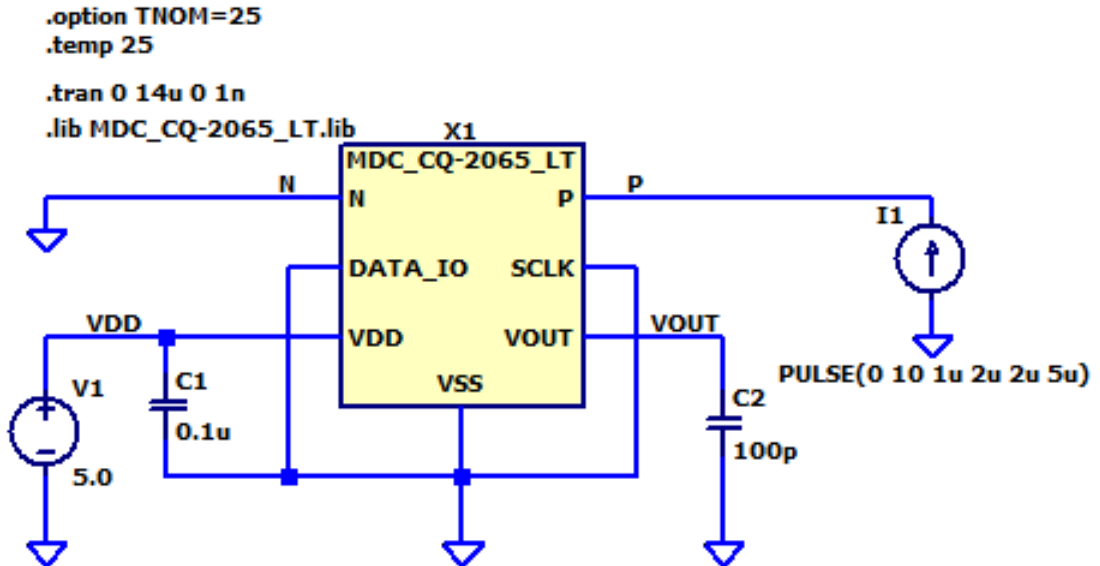
**I<sub>DD</sub> TestBench**  
**Referred to Data Sheet**



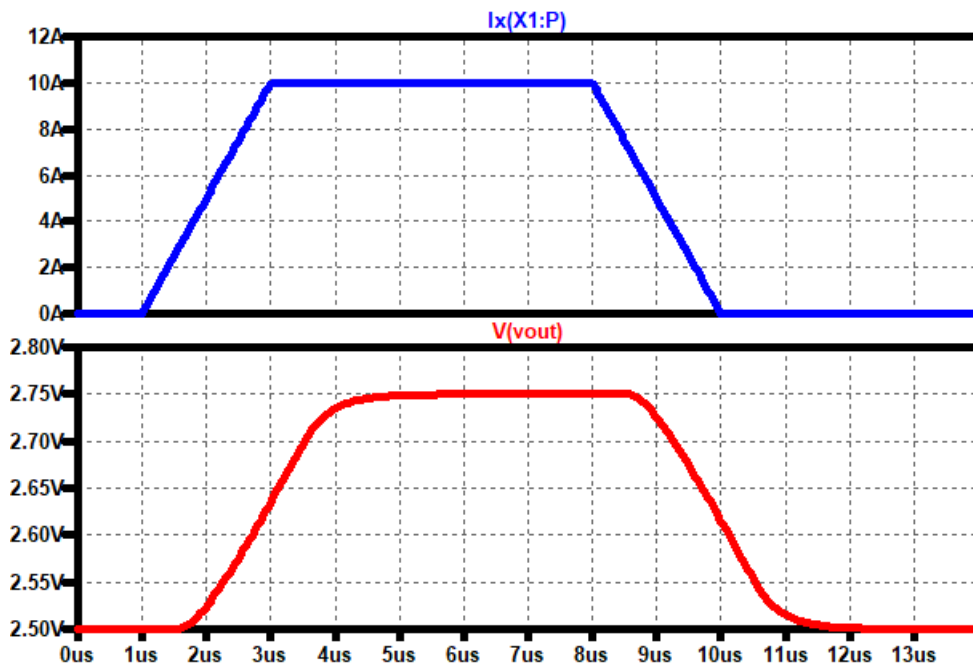
Simulation results are following.  
 Explanatory notes — : simulated



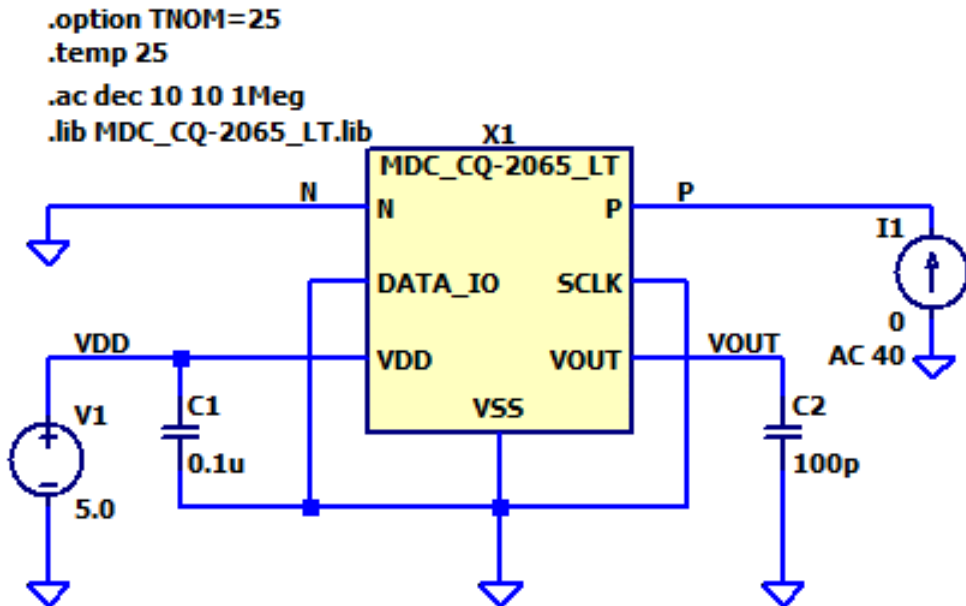
$t_r$ ,  $t_f$  TestBench  
 Referred to Data Sheet



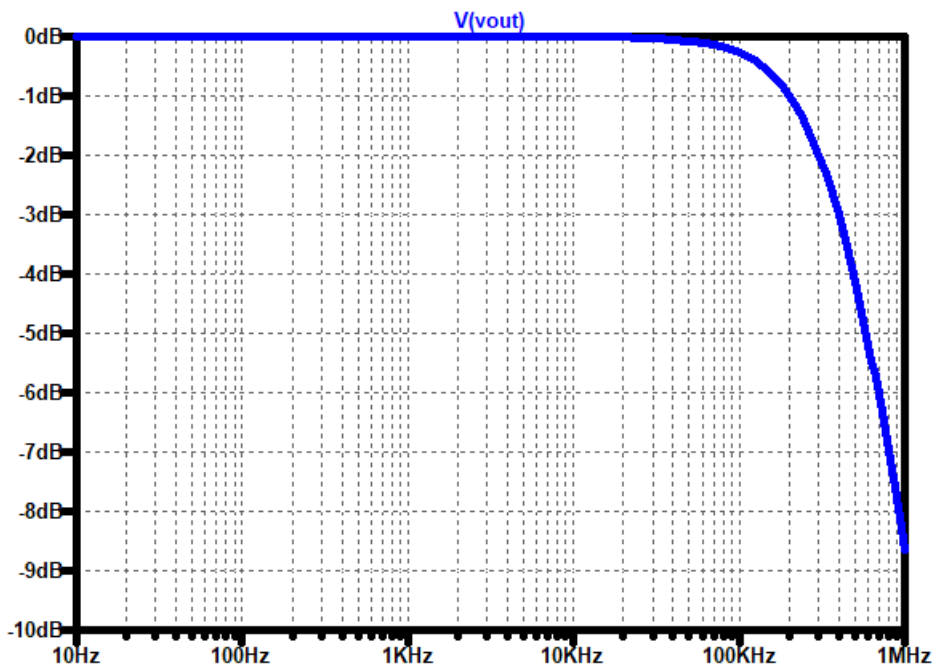
Simulation results are following.  
 Explanatory notes — : simulated



**f<sub>T</sub> TestBench**  
**Referred to Data Sheet**



Simulation results are following.  
 Explanatory notes — : simulated



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