

# PSpice Model

## PNP

## Diodes

## 2DB1689



### Model Information

**Model** Mextram model  
**Call Name** MDC\_2DB1689\_PS  
**Pin Assign** 1:C 2:B 3:E  
**File List** Model Library MDC\_2DB1689\_PS01.lib  
 Model Report MDC\_2DB1689\_PS.pdf (this file)

**Verified Simulator Version** PSpice version 16.6  
**Note**

### References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version Rev. 2 - 2
- Product name 2DB1689
- Company name Diodes Incorporated
- Characteristics  $I_C V_{CE}[I_B], h_{FE} I_C [Temp], V_{CE}(sat) I_C [Temp], I_C V_{BE} [Temp], V_{BE}(sat) I_C [Temp], C_{ib}, C_{ob}$

### Simulation Range

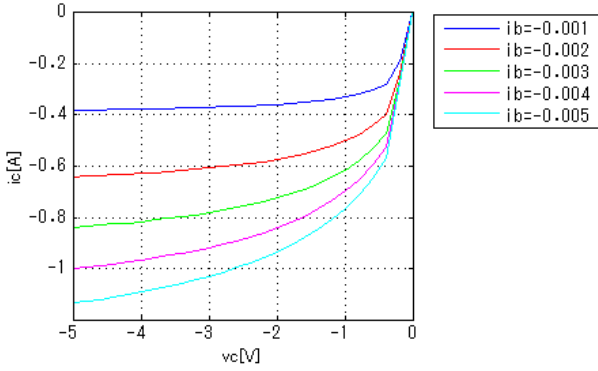
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	-12	V
Base current (DC)	0	to	-0.0750	A
Temperature	-55	to	150	deg C

Simulation results are following.  
 Explanatory notes — : simulated

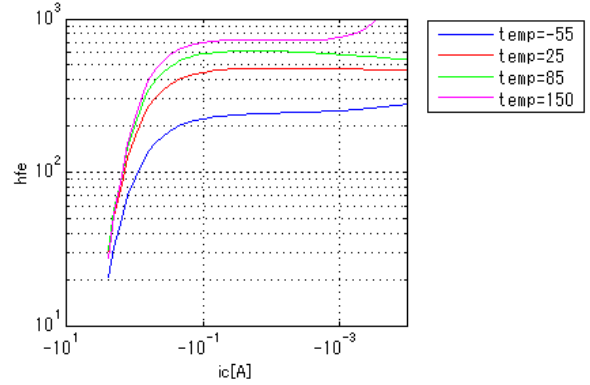
**IcVce[ib]**

Temp. = 25deg C



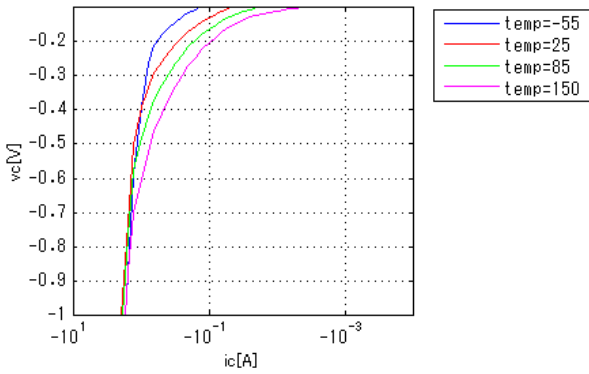
**hFEIc[Temp]**

Vce = -2V



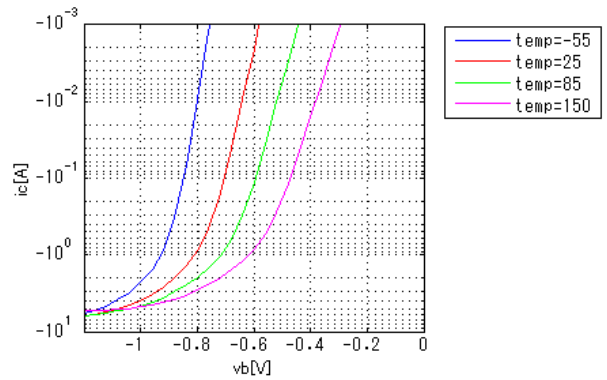
**Vce(sat)Ic[Temp]**

IC/IB = 20



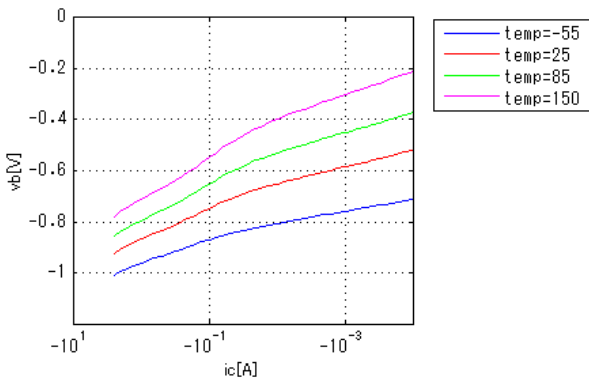
**IcVbe[Temp]**

Vce = -2V



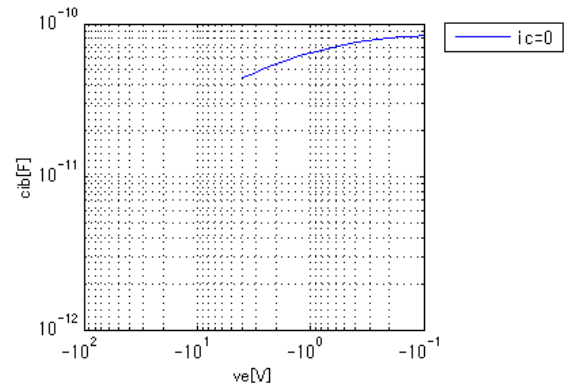
**Vbe(sat)Ic[Temp]**

IC/IB = 20



**Cib**

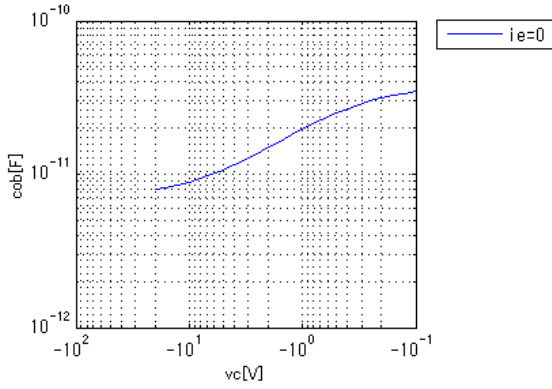
Freq. = 1MHz



Simulation results are following.  
 Explanatory notes — : simulated

**Cob**

Freq. = 1MHz



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MoDeCH Inc.

Head Office

Location: Mitsuseimei Hachioji Bldg., 5-15 Yokoyama-cho, Hachioji-Shi, Tokyo 192-0081, Japan

Tel:+81-42-656-3360

E-Mail:[model-on-support@modech.co.jp](mailto:model-on-support@modech.co.jp)

URL:<http://www.modech.com/en/>