

## PSpice Model NPN Diodes FCX458



### Model Information

**Model** Gummel-Poon model  
**Call Name** MDC\_FCX458\_PS  
**Pin Assign** 1:C 2:B 3:E  
**File List** Model Library MDC\_FCX458\_PS02.lib  
 Model Report MDC\_FCX458\_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. 7 - 2
- Product name FCX458
- Company name Diodes Incorporated
- Characteristics Vce(sat)Ic[hFE], Vce(sat)Ic[Temp], Vbe(sat)Ic[Temp], IcVbe[Temp]

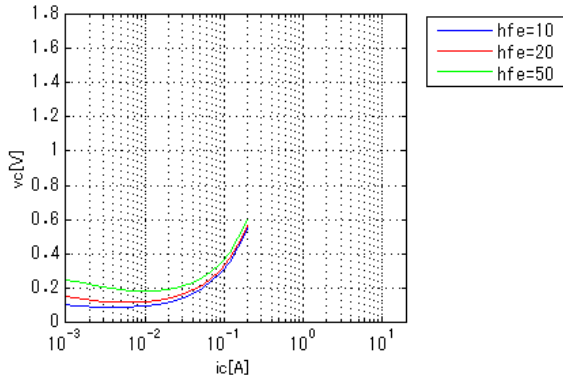
### Simulation Range

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	400	V
Base current (DC)	0	to	200m	A
Temperature	-65	to	150	deg C

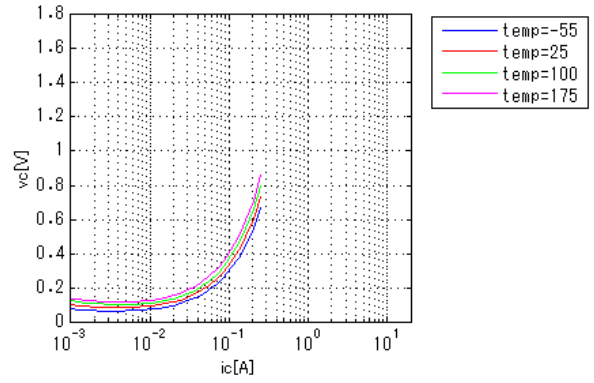
Simulation results are following.  
 Explanatory notes — : simulated

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



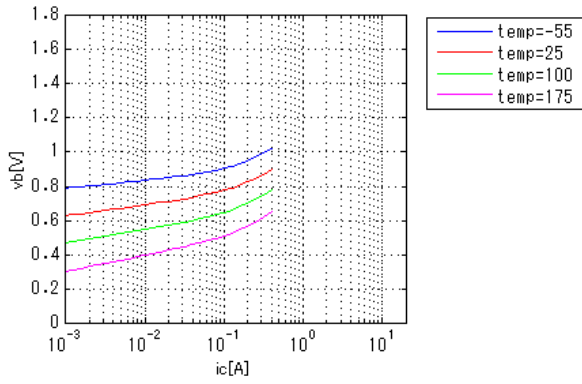
**Vce(sat)Ic[Temp]**

IC/IB = 10



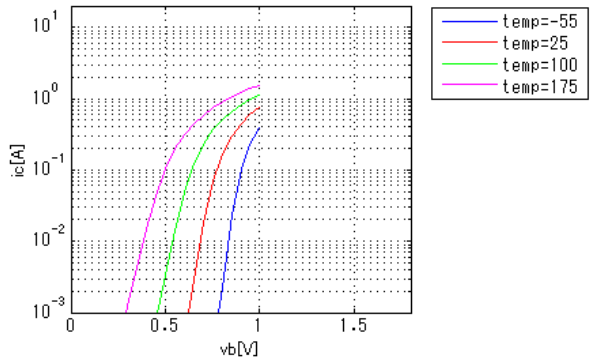
**Vbe(sat)Ic[Temp]**

IC/IB = 10



**IcVbe[Temp]**

Vce = 10V



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