

# LTspice Model

## PNP

## RENESAS

## 2SB1628



### Model Information

**Model** Mextram model  
**Call Name** MDC\_2SB1628\_LT  
**Pin Assign** 1:C 2:B 3:E  
**File List** Model Library MDC\_2SB1628\_LT01.lib  
 Model Report MDC\_2SB1628\_LT.pdf (this file)

**Verified Simulator Version** LTspice version XVII  
**Note**

### References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version September 1994 M
- Product name 2SB1628
- Company name Renesas Electronics Corporation
- Characteristics  $I_c V_{be}[Temp]$ ,  $h_{FE} I_c [Temp]$ ,  $V_{ce(sat)} I_c [Temp]$ ,  $V_{be(sat)} I_c [Temp]$ ,  $f_{T} I_c [V_{ce}]$ ,  $C_{ob}$

### Simulation Range

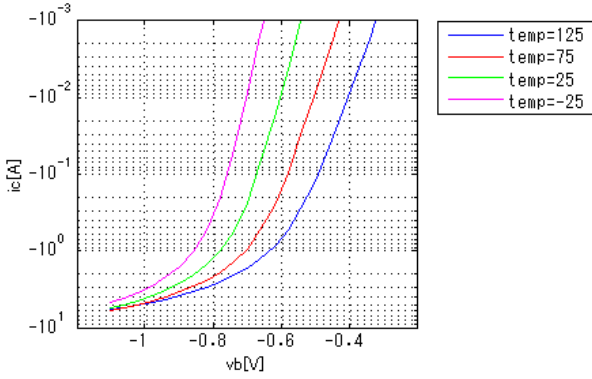
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Collector-emitter voltage (DC)	0	to	-16	V
Base current (DC)	0	to	-0.20	A
Temperature	-55	to	150	deg C

Simulation results are following.  
 Explanatory notes — : simulated

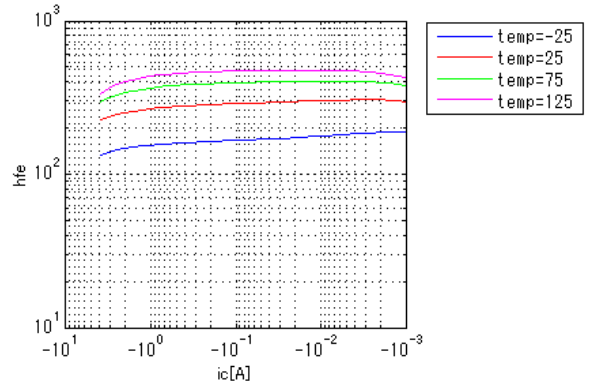
**IcVbe[Temp]**

Vce = -2V



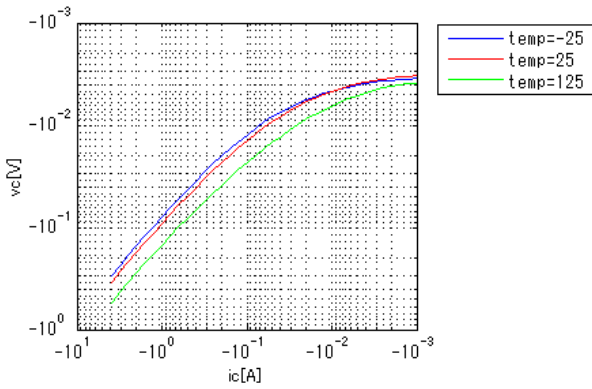
**hFEIc[Temp]**

Vce = -2V



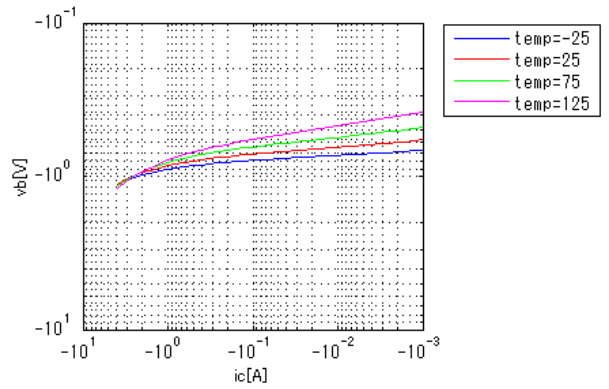
**Vce(sat)Ic[Temp]**

IC/IB = 10

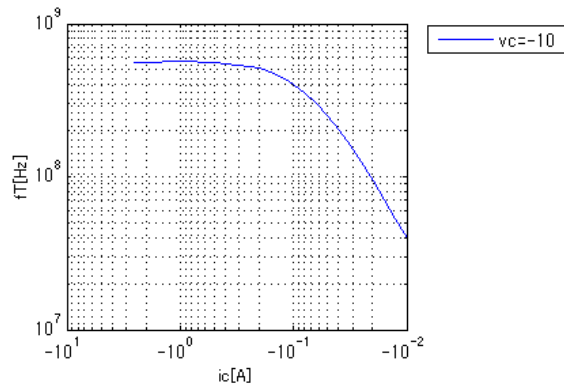


**Vbe(sat)Ic[Temp]**

IC/IB = 20

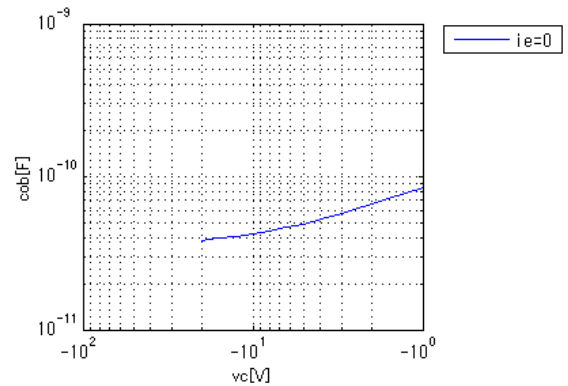


**fT[Ic[Vce]]**



**Cob**

Freq. = 1MHz



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