

## SPICE PARAMETER

### EMH1

by ROHM TR Div.

```
* EMH1 DIGITAL NPN BJT model
* Date: 2007/01/11
* BJT with resistors
*****C B E
.SUBCKT EMH1 1 2 3
R1 2 Base Rb 22k
R2 Base 3 Re 22k
Q1 1 Base 3 QDTC1
.MODEL Rb RES
+ R=1
.MODEL Re RES
+ R=1
.MODEL QDTC1 NPN
+ IS=20.000E-15
+ BF=198.80
+ VAF=15
+ IKF=.28787
+ ISE=20.001E-15
+ NE=1.6289
+ BR=8.4556
+ VAR=100
+ IKR=.2645
+ ISC=8.0686E-12
+ NC=2.3678
+ NK=.75224
+ RE=.2
+ RB=10.670
+ RC=1.1274
+ CJE=11.342E-12
+ MJE=.38289
+ CJC=4.0230E-12
+ MJC=.34629
+ TF=500.00E-12
+ XTF=580.91
+ VTF=195.13
+ ITF=19.351
+ TR=200.00E-9
+ XTB=1.5000
.ENDS EMH1
```