

```
.MODEL QBC557B PNP(
+ IS=3.834E-14
+ NF=1.008
+ ISE=1.219E-14
+ NE=1.528
+ BF=344.4
+ IKF=0.08039
+ VAF=21.11
+ NR=1.005
+ ISC=2.852E-13
+ NC=1.28
+ BR=14.84
+ IKR=0.047
+ VAR=32.02
+ RB=1
+ IRB=1E-06
+ RBM=1
+ RE=0.6202
+ RC=0.5713
+ XTB=0
+ EG=1.11
+ XTI=3
+ CJE=1.23E-11
+ VJE=0.6106
+ MJE=0.378
+ TF=5.595E-10
+ XTF=3.414
+ VTF=5.23
+ ITF=0.1483
+ PTF=0
+ CJC=1.084E-11
+ VJC=0.1022
+ MJC=0.3563
+ XCJC=0.6288
+ TR=1E-32
+ CJS=0
+ VJS=0.75
+ MJS=0.333
+ FC=0.8027 )
*
```