



```
.model Q_PNP_OPS PNP(Bf = 50, Vaf = 100, Vje = 0.7)
.model Q_NPN_OPS NPN(Bf = 50, Vaf = 100, Vje = 0.7)
.model Q_PNP PNP(Bf = 100, Vaf = 100, Vje = 0.7)
.model Q_NPN NPN(Bf = 100, Vaf = 100, Vje = 0.7)
```

```
;ac dec 501 1 1MEG
```

```
;noise V(out) Vin dec 501 20 20k
```

```
.tran 10m
```

```
.op
```

