

```
.model LSK489A NJF(Beta=2.2m Betatce=-.5 Rd=11 Rs=30 Lambda=4.3m Vto=-1.13 Vtct=-2.5m Is=3f Isr=0 N=1 Xti=0 Alpha=30u Vkn=120 Cgd=3.19p Mj=0.32 Pb=0.8 Fc=0.5 Cgs=2.92p Kf=0.0009f Af=1 Gdsnoi=2.15 Nev=3 Mfg=Linear_Systems)
```

```
;include Cordell-Models.txt
```

```
.MODEL J111 NJF(VTO=-5.3638 BETA=3.25000m BETATCE=-0.5 LAMBDA=2.00000E-2 RD=2.42642 RS=2.42642 CGS=1.10000E-11 CGD=1.30000E-11 PB=7.01712E-1 IS=2.17605f XTI=3 AF=1 FC=0.5 N=1 NR=2 MFG=PHILIPS)
```

```
.MODEL 2SK369BL NJF (VTO=-490M BETA=42M LAMBDA=1M IS=10f CGD=36.6561P  
+ CGS=60.0451P PB=1.99682 KF=0.001F AF=500M )
```

```
.model J2sk170 NJF(Beta=36m Rs=4.151 Rd=4.151 Betatce=-.5 Lambda=1.923m  
+ Vto=-.5024 Vtct=-2.5m Cgd=20p M=3805 Pb=.4746 Fc=.5  
+ Cgs=30p Isr=84.77p Nr=2 Is=8.477p N=1 Xti=3 Alpha=10u Vk=100  
+ Kf=111.3E-18 Af=1)
```

```
.include models_3306.txt
```

```
.include MYamp.txt
```

```
;include RC-MODELS EVO1.txt
```

```
;include library.txt
```

```
.inc je990.mod
```

```
.inc MJE172.mod
```

```
.inc MJE182.mod
```

```
.inc 1N914B.mod
```

```
.options plotwinsize=0
```

```
.options numdgt=7
```

```
.param Freq=1k  
.param numcyc=10  
.param diycyc=0.1  
.param FFT=2**15  
.param sltime=(diycyc+numcyc)/Freq  
.param dlytime=diycyc/Freq  
.param numsample=sltime/Freq/((sltime/numcyc)*FFT)  
.four (Freq) V(Vin) V(Vout)
```

```
;tran 0 (sltime) (dlytime) (numsample)
```

```
.param Vin 1
```

```
;ac dec 10 1 100meg
```

