

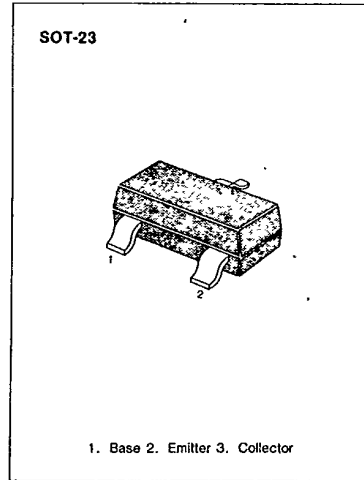
T-31-15

**RF AMP, FOR VHF TV TUNER**

- LOW NF, HIGH  $G_{pe}$
- $NF=2.0dB$  Typ.  $G_{pe}=23dB$  Typ. ( $f=200MHz$ )
- FORWARD AGC CAPABILITY TO 30 dB

**ABSOLUTE MAXIMUM RATINGS ( $T_a=25^\circ C$ )**

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CBO}$	30	V
Collector-Emitter Voltage	$V_{CEO}$	30	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current (DC)	$I_C$	20	mA
Collector Dissipation	$P_C$	150	mW
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 - 150	$^\circ C$

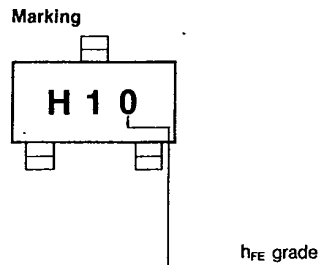


**ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ C$ )**

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=20V, I_E=0$			0.1	$\mu A$
DC Current Gain	$h_{FE}$	$V_{CE}=10V, I_C=3mA$	60	120	240	
Current Gain Bandwidth Product	$f_T$	$V_{CE}=10V, I_C=-3mA$	400	600		MHz
Reverse Transfer Capacitance	$C_{re}$	$f=1MHz, V_{CB}=10V, I_E=0$		0.3	0.5	pF
Power Gain	$G_{pe}$	$f=200MHz, I_C=3mA$	20	23		dB
AGC Current	$I_{AGC}$	$f=200MHz$		-10	-12	mA
Noise Figure	NF	$I_E$ of $G_{pe}$ -30dB $f=200MHz, I_C=3mA$		2.0	3.0	dB

**$h_{FE}$  CLASSIFICATION**

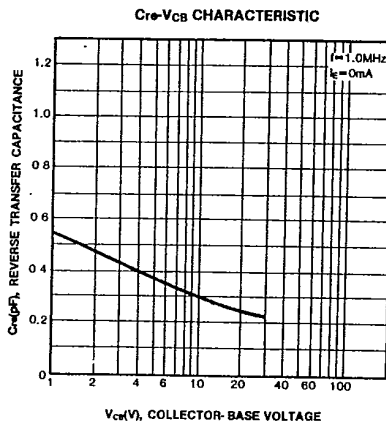
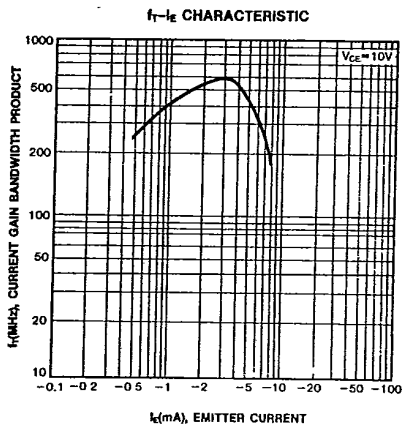
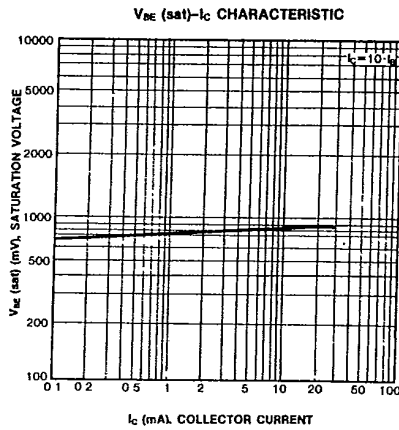
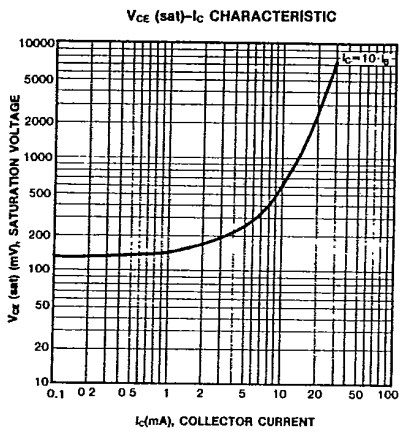
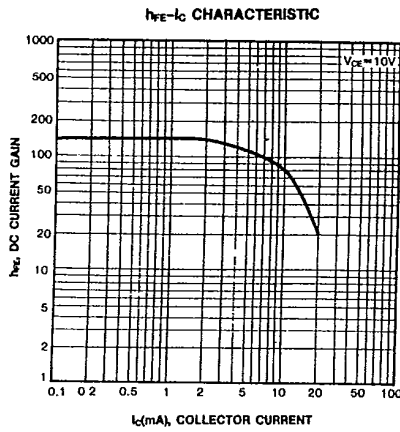
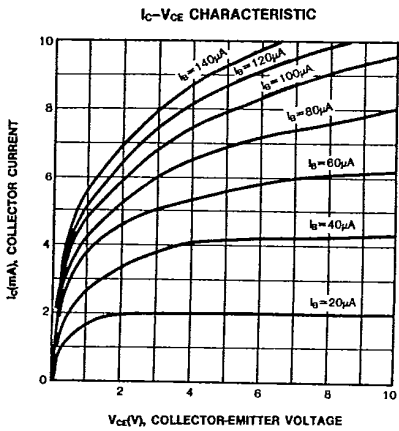
Classification	R	O	Y
$h_{FE}$	60-120	90-180	120-240



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NPN EPITAXIAL SILICON TRANSISTOR

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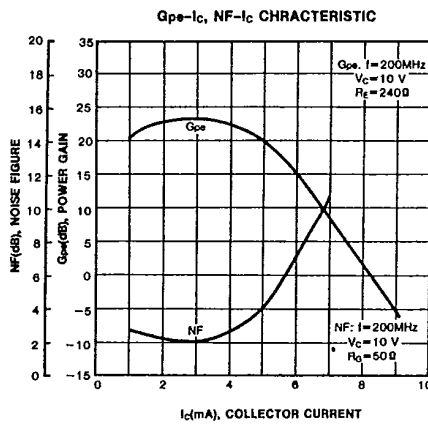
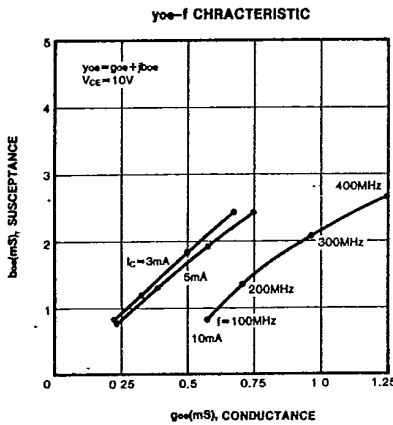
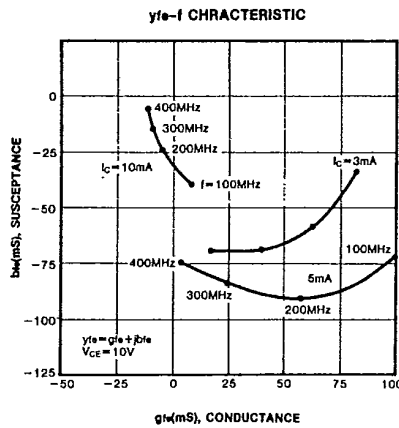
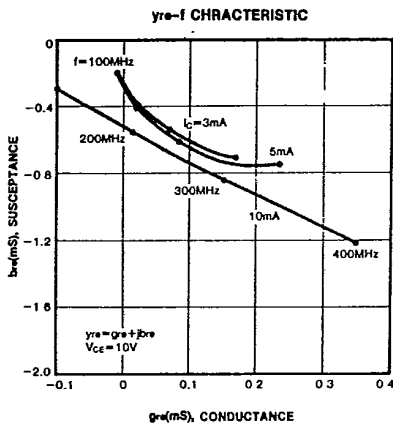
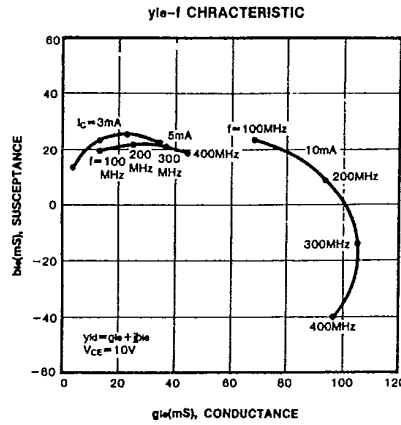
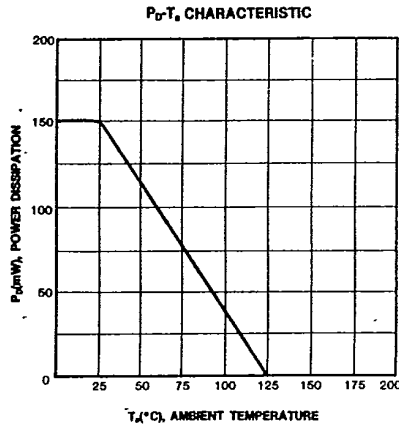


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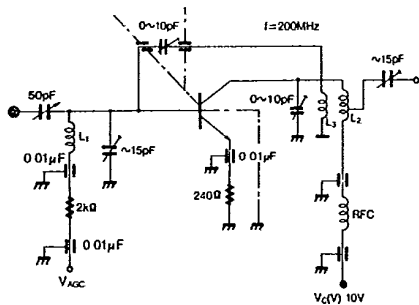


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POWER GAIN AND NOISE FIGURE TEST



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