

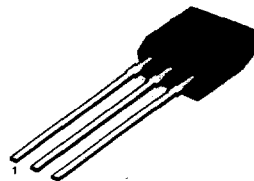
FM/AM RF AMP, MIX, CONV, OSC, IF

- Collector-Base Voltage $V_{CE0}=30V$
- High Current Gain Bandwidth Product $f_T=300MHz$ (Typ)
- Low Collector Capacitance $C_{OB}: 2.0pF$ (Typ)

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	50	mA
Collector Dissipation	P_C	250	mW
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{STG}	-55 ~ 150	$^\circ C$

TO-92S



1. Emitter 2. Collector 3. Base

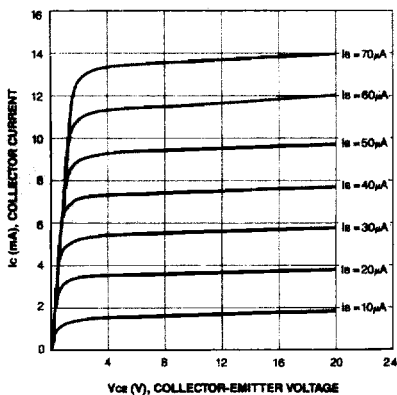
ELECTRICAL CHARACTERISTICS ($T_A=25^\circ C$)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=10\mu A, I_E=0$	50			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=5mA, I_B=0$	30			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=10\mu A, I_C=0$	5			V
Collector Cut-off Current	I_{CBO}	$V_{CB}=50V, I_E=0$			0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=6V, I_C=1mA$	40		240	
Base-Emitter On Voltage	$V_{BE(on)}$	$V_{CE}=6V, I_C=1mA$		0.67	0.75	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10mA, I_B=1mA$		0.08	0.3	V
Current Gain-Bandwidth Product	f_T	$V_{CE}=6V, I_C=1mA$	150	300		MHz
Output Capacitance	C_{OB}	$V_{CB}=6V, f=1MHz$		2.0	2.5	pF

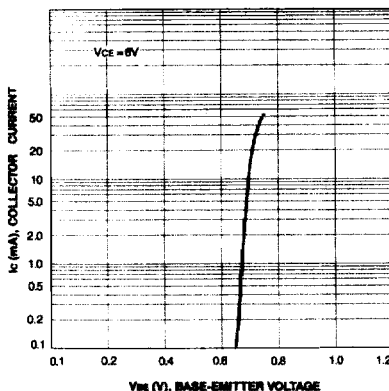
 h_{FE} CLASSIFICATION

Classification	R	O	Y
h_{FE}	40-80	70-140	120-240

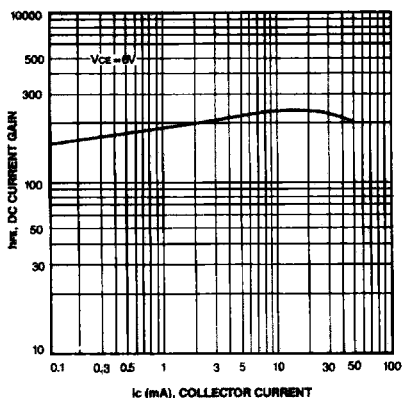
STATIC CHARACTERISTIC



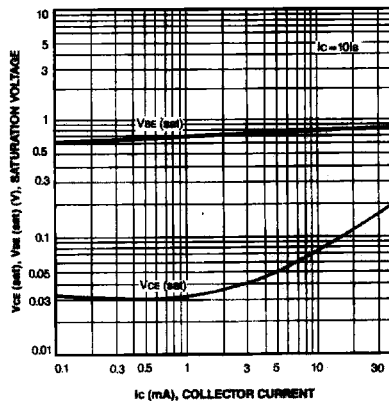
BASE-EMITTER ON VOLTAGE



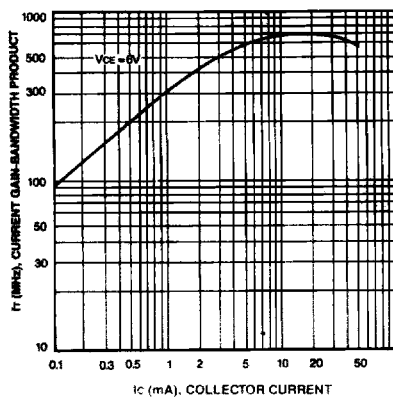
DC CURRENT GAIN



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



CURRENT GAIN-BANDWIDTH PRODUCT



COLLECTOR INPUT CAPACITANCE
COLLECTOR OUTPUT CAPACITANCE

