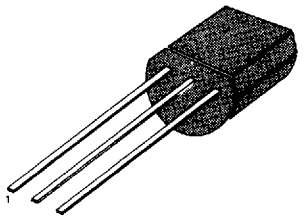
AM CONVERTER, FM/RF AMPLIFIER OF LOW NOISE.

- High total power dissipation. (PT=400mW)

TO-92



1. Emitter 2. Base 3. Collector

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	20	V
Emitter-Base Voltage	V_{EBO}	4	V
Collector Current	I_C	25	mA
Collector Dissipation	P_C	400	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	−55~150	°C

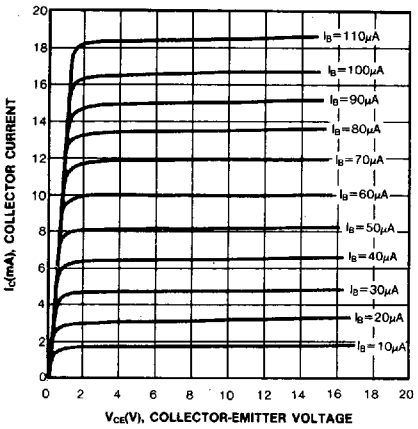
ELECTRICAL CHARACTERISTICS (T_a=25°C)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=100μA, I_E=0	30			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=1mA, I_B=0	20			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=100μA, I_C=0	4			V
Collector Cutoff Current	I_{CBO}	V_{CB}=30V, I_E=0			100	nA
Emitter Cutoff Current	I_{EBO}	V_{EB}=3V, I_C=0			100	nA
DC Current Gain	h_{FE}	V_{CE}=5V, I_C=1mA	28	90	198	
Collector-Emitter Saturation Voltage	V_{CE}(sat)	I_C=10mA, I_B=1mA		0.1	0.3	V
Base-Emitter On Voltage	V_{BE} (on)	V_{CE}=5V, I_C=1mA		0.72		V
Output Capacitance	C_{ob}	V_{CB}=10V, I_E=0 f=1MHz		1.2	1.6	pF
Current Gain-Bandwidth Product	f_T	V_{CE}=5V, I_C=1mA	400	620		MHz
Noise Figure	NF	V_{CE}=5V, I_C=1.0mA f=100MHz, Rs=50Ω		3.0	5.0	dB

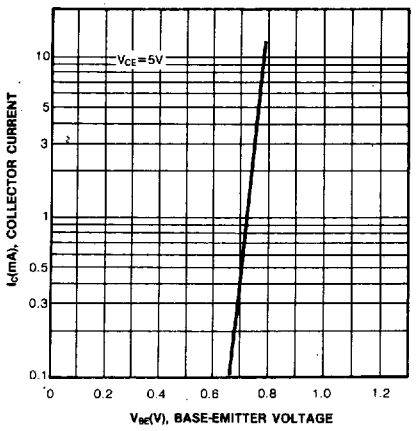
h_{FE} CLASSIFICATION

Classification	D	E	F	G	H	I
h_{FE}	28-45	39-60	54-80	72-108	97-146	132-198

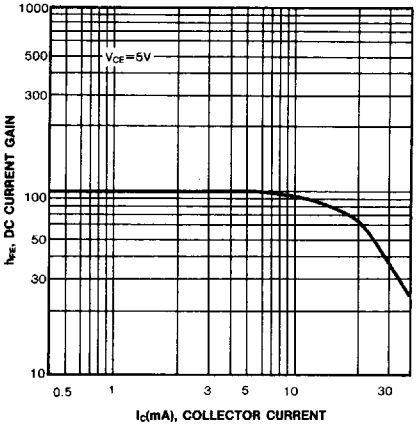
STATIC CHARACTERISTIC



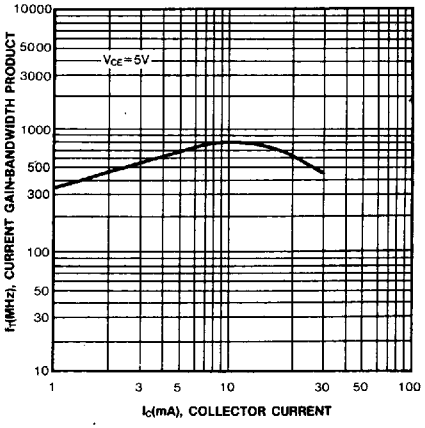
BASE-EMITTER ON VOLTAGE



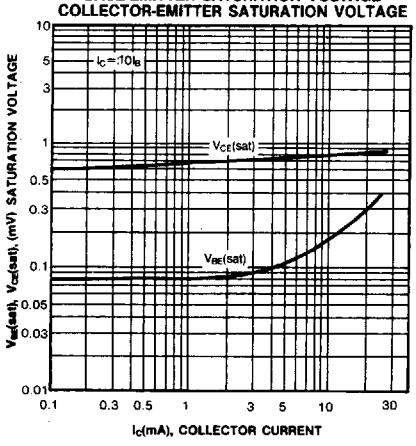
DC CURRENT GAIN



CURRENT GAIN-BANDWIDTH PRODUCT



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



COLLECTOR OUTPUT CAPACITANCE