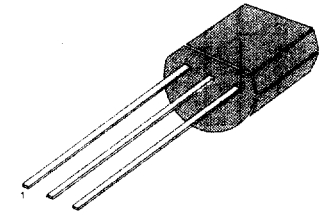
LOW FREQUENCY AMPLIFIER

- Complement to KSC1815
- Collector-Base Voltage V_{CBO}= -50V

TO-92



1. Emitter 2. Base 3. Collector

ABSOLUTE MAXIMUM RATINGS (T_A=25℃)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-150	mA
Base Current	I_B	-50	mA
Collector Dissipation	P_C	400	mW
Junction Temperature	T_J	125	℃
Storage Temperature	T_{STG}	-65 ~ 150	℃

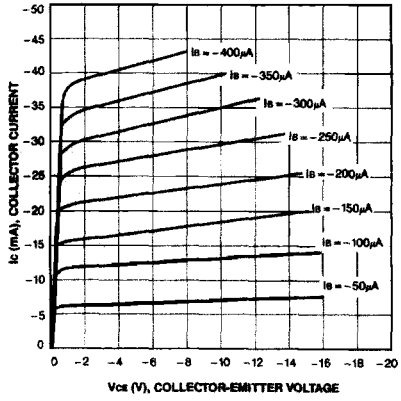
ELECTRICAL CHARACTERISTICS (T_A=25℃)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C= -100μA, I_E=0	-50			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C= -10mA, I_B=0	-50			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E= -10μA, 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_{FE1}	V_{CE}= -6V, I_C= -2mA	70		400	
	h_{FE2}	V_{CE}= -6V, I_C= -150mA	25			
Collector-Emitter Saturation Voltage	V_{CE} (sat)	I_C= -100mA, I_B= -10mA		-0.1	-0.3	V
Base Emitter Saturation Voltage	V_{BE} (sat)	I_C= -100mA, I_B= -10mA			-1.1	V
Current-Gain Bandwidth Product	f_T	V_{CE}= -10V, I_C=1mA	80			MHz
Output Capacitance	C_{OB}	V_{CB}= -10V, I_E=0, f=1MHz		4	7	pF
Noise Figure	NF	V_{CE}= -6V, I_C= -0.1mA		0.5	6	dB
		f=100Hz, R_G=10kΩ				

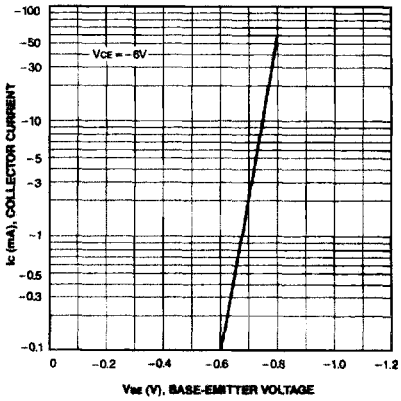
h_{FE}(1) CLASSIFICATION

Classification	O	Y	G
h_{FE}	70~140	120~240	200~400

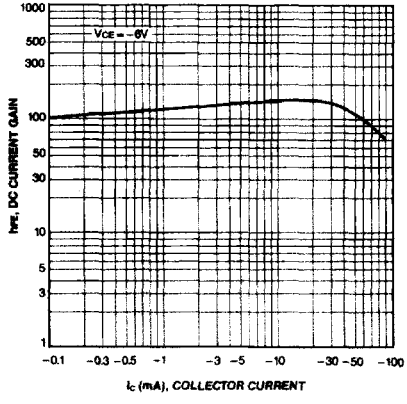
STATIC CHARACTERISTIC



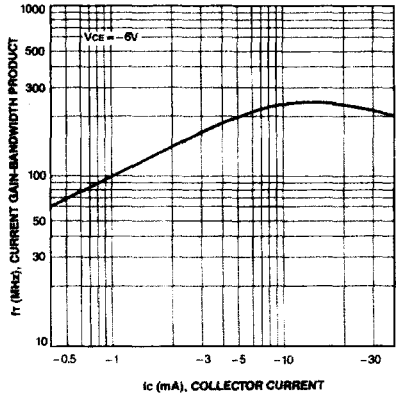
BASE-EMITTER ON VOLTAGE



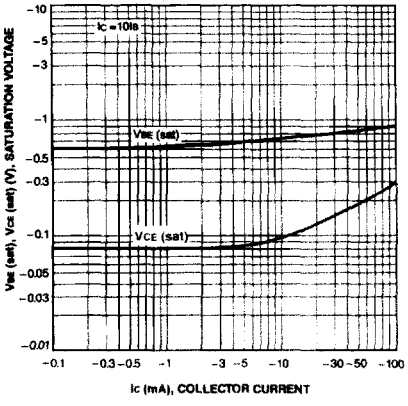
DC CURRENT GAIN



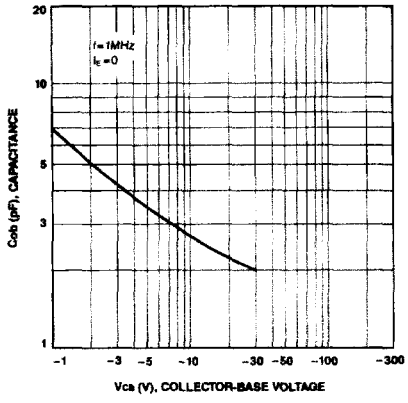
CURRENT GAIN-BANDWIDTH PRODUCT



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



COLLECTOR OUTPUT CAPACITANCE



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