

KSC1845

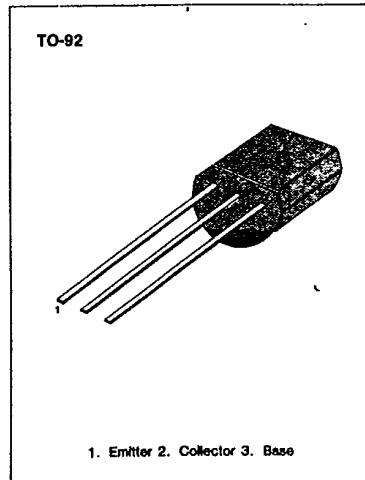
NPN EPITAXIAL SILICON TRANSISTOR

AUDIO FREQUENCY LOW NOISE AMPLIFIER

• Complement to KSA992

ABSOLUTE MAXIMUM RATINGS (T_a = 25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	120	V
Collector-Emitter Voltage	V _{CE0}	120	V
Emitter-Base Voltage	V _{EB0}	5	V
Collector Current	I _C	50	mA
Base Current	I _B	10	mA
Collector Dissipation	P _C	500	mW
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55 ~ 150	°C



ELECTRICAL CHARACTERISTICS (T_a = 25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Cutoff Current	I _{CB0}	V _{CB} = 120V, I _E = 0			50	nA
Emitter Cutoff Current	I _{EB0}	V _{EB} = 5V, I _C = 0			50	nA
DC Current Gain	h _{FE1}	V _{CE} = 6V, I _C = 0.1mA	150	580		
	h _{FE2}	V _{CE} = 6V, I _C = 1mA	200	600	1200	
Base Emitter On Voltage	V _{BE (on)}	V _{CE} = 6V, I _C = 1mA	0.55	0.59	0.65	V
Collector Emitter Saturation Voltage	V _{CE (sat)}	I _C = 10mA, I _B = 1mA		0.07	0.3	V
Current Gain Bandwidth Product	f _T	V _{CE} = 6V, I _E = -1mA	50	110		MHz
Output Capacitance	C _{ob}	V _{CB} = 30V, I _E = 0 f = 1MHz		1.6	2.5	pF
Noise Voltage	NV			25	40	mV

h_{FE}(2) CLASSIFICATION

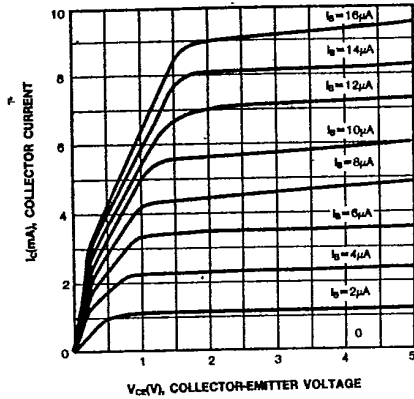
Classification	P	F	E	U
h _{FE} (2)	200-400	300-600	400-800	600-1200

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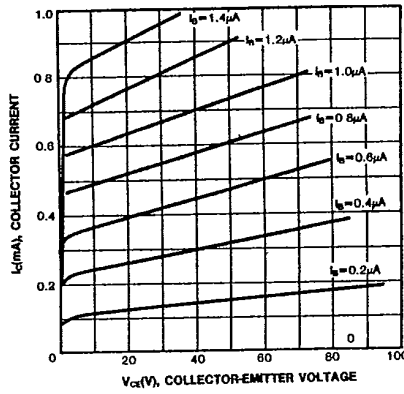
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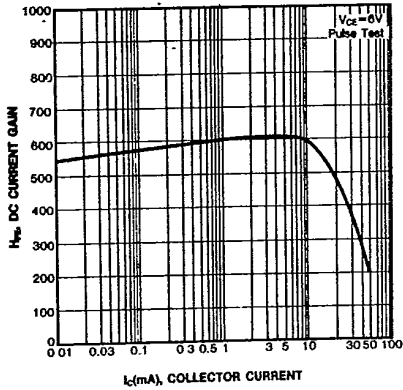
STATIC CHARACTERISTIC



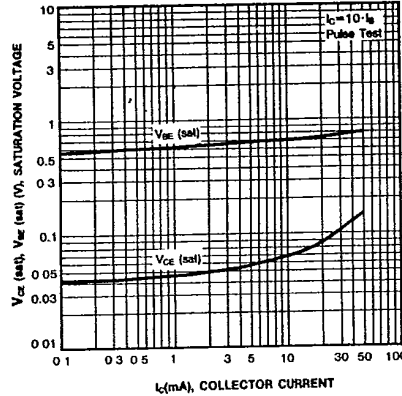
STATIC CHARACTERISTIC



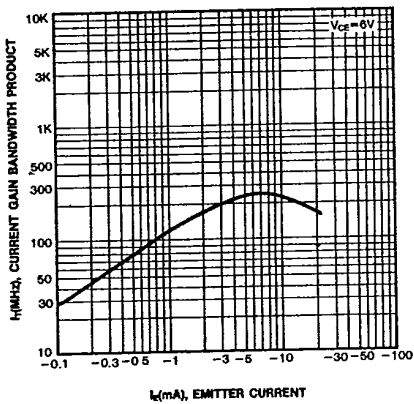
DC CURRENT GAIN



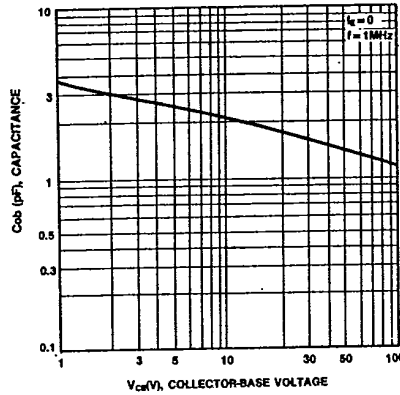
BASE-EMITTER SATURATION VOLTAGE



CURRENT GAIN-BANDWIDTH PRODUCT



COLLECTOR OUTPUT CAPACITANCE



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