

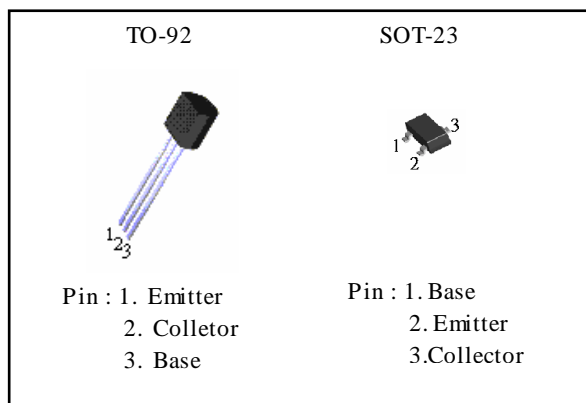
**PNP Epitaxial Silicon Transistor**

**AUDIO FREQUENCY AMPLIFIER  
HIGH FREQUENCY OSC.**

- Complement to PJC945

**ABSOLUTE MAXIMUM RATINGS (Ta = 25 °C)**

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V <sub>CBO</sub>	-50	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-45	V
Emitter-Base Voltage	V <sub>EBO</sub>	-5	V
Collector Current	I <sub>c</sub>	-100	mA
Collector Dissipation	P <sub>C</sub>	450	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 ~150	°C



**ORDERING INFORMATION**

Device	Operating Temperature	Package
PJA733CT	-20°C ~+85°C	TO-92
PJA733CX		SOT-23

**ELECTRICAL CHARACTERISTICS (Ta = 25 °C)**

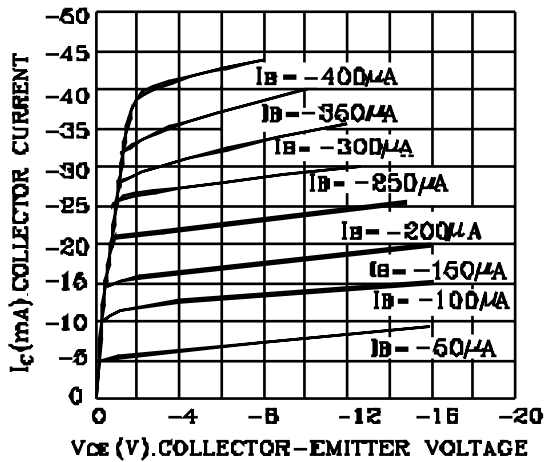
Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV <sub>CBO</sub>	I <sub>c</sub> = -100μA, I <sub>E</sub> = 0	-50			V
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	I <sub>c</sub> = -1.0mA, I <sub>B</sub> = 0	-40			V
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	I <sub>E</sub> = -100μA, I <sub>C</sub> = 0	-5			V
Collector Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> = 45V, I <sub>E</sub> = 0			-50	nA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> = 3V, I <sub>C</sub> = 0			-50	nA
Collector-Cutoff Current	I <sub>CEO</sub>	V <sub>CE</sub> = 40V, I <sub>B</sub> = 0				
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> = 6V, I <sub>c</sub> = 1.0 mA	70	200	700	
Collector-Emitter Saturation Voltage	V <sub>CE(SAT)</sub>	I <sub>C</sub> = -100mA, I <sub>B</sub> = -5mA		-0.2	-0.7	V
Base-Emitter Saturation Voltage	V <sub>BE(SAT)</sub>	I <sub>C</sub> = -100mA, I <sub>B</sub> = -5mA		-0.82	-1.0	V
Base-Emitter On Voltage	V <sub>BE(on)</sub>	I <sub>C</sub> = -2mA, V <sub>CE</sub> = -5V	-0.6	-0.65	-0.75	V
Current-Gain-Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> = -5V, I <sub>C</sub> = -10mA	100	190		MHz
Output Capacitance	C <sub>Ob</sub>	f = 1MHz		4.5	7.0	pF
Noise Figure	NF	V <sub>CB</sub> = -10V, I <sub>E</sub> = 0 V <sub>CE</sub> = -5V, I <sub>C</sub> = -0.2mA f = 1KHz, R <sub>S</sub> = 1KΩ		0.7	10	dB

**h<sub>FE</sub> (2) CLASSIFICATION**

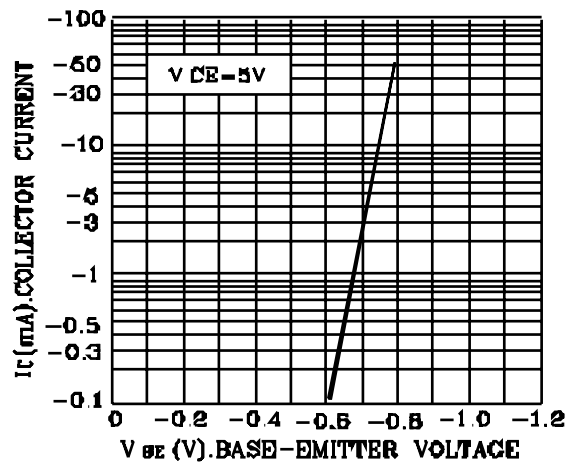
Classification	R	Q	P	K
h <sub>FE</sub>	70-140	120-240	200-400	350-700

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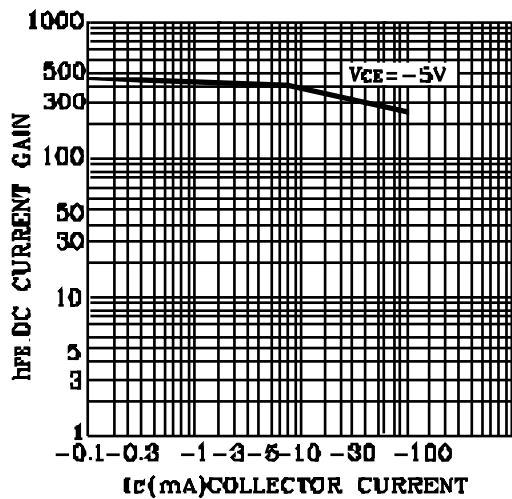
STATIC CHARACTERISTIC



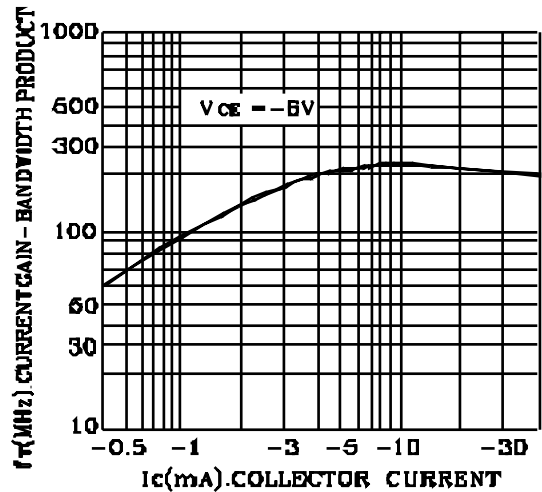
BASE-EMITTER VOLTAGE



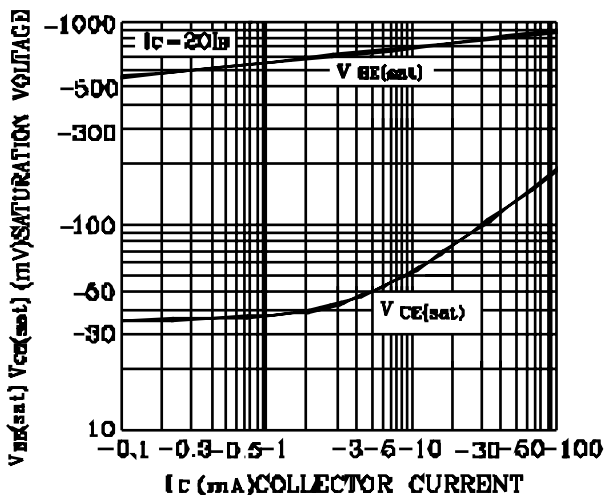
DC CURRENT GAIN



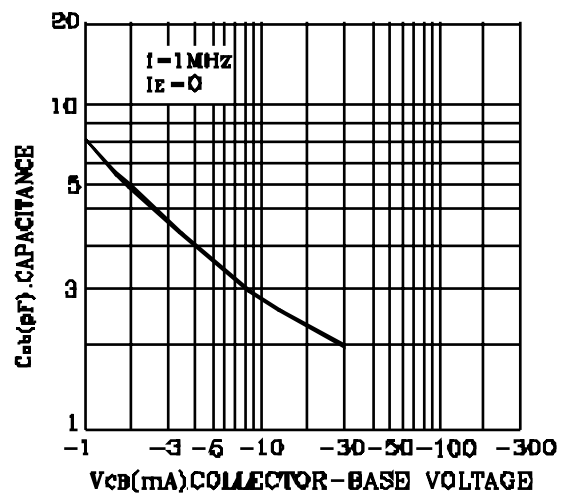
CURRENT GAIN-BANDWIDTH PRODUCT



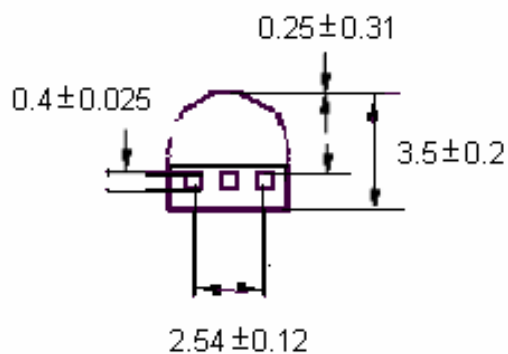
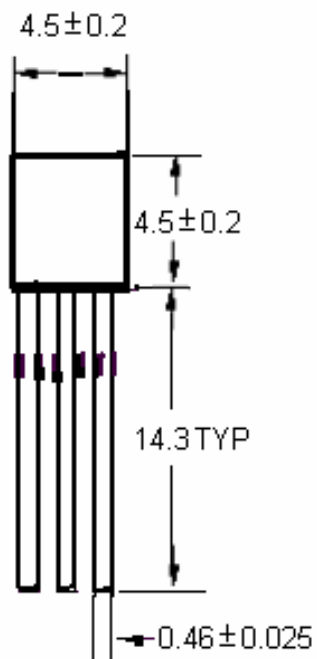
BASE-EMITTER SATURATION VOLTAGE  
COLLECTOR-EMITTER SATURATION VOLTAGE



COLLECTOR OUTPUT CAPACITANCE



**TO-92 Unit:mm**



**SOT-23 Unit:mm**

