

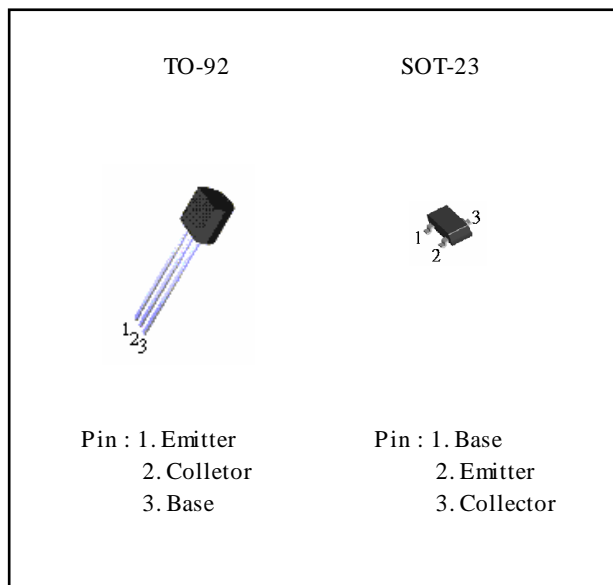
NPN Epitaxial Silicon Transistor

**AUDIO FREQUENCY AMPLIFIER
HIGH FREQUENCY OSC.**

- Complement to PJA733
- Excellent DC Current Gain Linearly 0.1mA to 50mA
- Low Output Capacitance Cob=2.5PF(Typ.) @V_{CB}=6V, f=1MHz
- Low Noise Figure NF=2.5dB(TYP.) I_C=0.1mA, V_{CE}=6V R_g=2KΩ, f=1KHz
- DC Current Gain Selection Available

ABSOLUTE MAXIMUM RATINGS (T_a = 25°C)

Rating	Symbol	Rating	Unit
Collector-Base Voltage	V _{CBO}	60	V
Collector-Emitter Voltage	V _{CEO}	50	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current	I _C	120	mA
Total Device Dissipation	P _D	450	mW
	P _D	1.2	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 ~150	°C



ORDERING INFORMATION

Device	Operating Temperature	Package
PJC945CT	-20°C ~+85°C	TO-92
PJC945CX		SOT-23

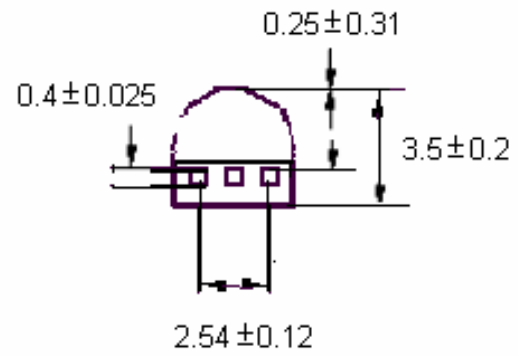
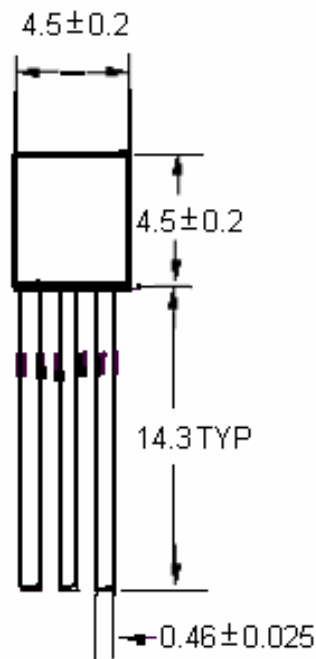
ELECTRICAL CHARACTERISTICS (T_a = 25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV _{CBO}	I _C = 10μA, I _E = 0	80			V
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _C = 1.0mA, I _B = 0	50			V
Emitter-Base Breakdown Voltage	BV _{EBO}	I _E = -10μA, I _C = 0	5			V
Collector Cutoff Current	I _{CBO}	V _{CB} =45V, I _E =0			0.1	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} =3V, I _C =0			0.1	μA
Collector-Cutoff Current	I _{CEO}	V _{CE} =40V, I _B =0			1	μA
DC Current Gain	h _{FE(1)}	V _{CE} =6V, I _C =0.1 mA	50			
	h _{FE(2)}	V _{CE} =6V, I _C =1.0 mA	70		70	
Collector-Emitter Saturation Voltage	V _{CE(SAT)}	I _C =10mA, I _B =1mA		0.09	0.3	V
Base-Emitter Saturation Voltage	V _{BE(SAT)}	I _C =10mA, I _B =1mA		0.81	1	V
Base-Emitter On Voltage	V _{BE(on)}	I _C =0.1mA, V _{CE} =6V	0.55	0.6	0.65	V
Current-Gain-Bandwidth Product	f _T	V _{CE} =6V, I _C =10mA	150	250	450	MHz
		V _{CB} =6V, I _E =0				
Output Capacitance	C _{ob}	f=1MHz, V _{CE} =6V, I _E =-0.5mA		2.5	5	pF
Noise Figure	NF	f=1KHz, R _S =2KΩ		2.5	15	dB

h_{FE(2)} CLASSIFICATION

Classification	R	P	Q	K
h _{FE(2)}	70-140	120-240	200-400	350-700

TO-92 Unit:mm



SOT-23 Unit:mm

