

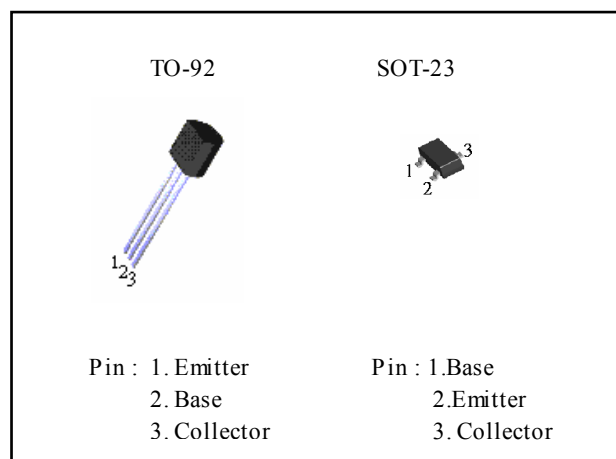
PNP Epitaxial Silicon Transistor

PRE-AMPLIFIER, LOW LEVEL & LOW NOISE

- High total power dissipation (PT=450mW)
- High h_{FE} and good linearity
- Complementary to PJ2N9014

ABSOLUTE MAXIMUM RATINGS (T_a= 25°C)

Characteristic	Symbol	Rating	Unit
Collector Base Voltage	V_{CBO}	-50	V
Collector Emitter Voltage	V_{CEO}	-45	V
Emitter Base Voltage	V_{EBO}	-5	V
Collector Current	I_c	-100	mA
Collector Dissipation	P_c	450	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 ~150	°C



ORDERING INFORMATION

Device	Operating Temperature	Package
PJ2N9015CT	-20°C ~ +85°C	TO-92
PJ2N9015CX		SOT-23

ELECTRICAL CHARACTERISTICS (T_a= 25 °C)

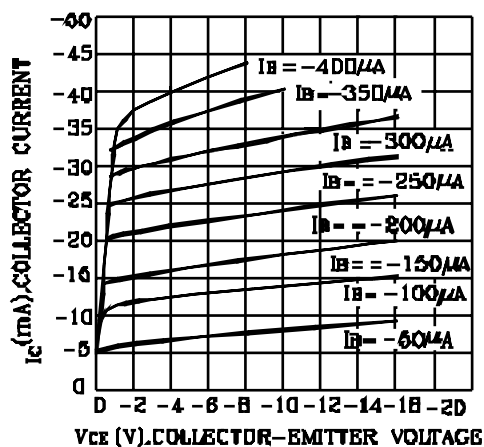
Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C = -100 \mu A, I_E = 0$	-50			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = -1mA, I_B = 0$	-45			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = -100 \mu A, I_C = 0$	-5			V
Collector Cut-off Current	I_{CBO}	$V_{CB} = -50V, I_E = 0$			-50	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-50	nA
DC Current Gain	h_{FE}	$V_{EB} = -5V, I_C = -1 mA$	60	200	600	
Collector- Base Saturation Voltage	$V_{CE(sat)}$	$I_C = -100 mA, I_B = -5mA$		-0.2	-0.7	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -100mA, I_B = -5mA$		-0.82	-1.0	V
Base-Emitter On Voltage	$V_{BE(ON)}$	$V_{CE} = -5V, I_C = -2 mA$	-0.6	-0.65	-0.75	V
Output Capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0$ $f = 1MHz$		4.5	7.0	pF
Current Gain Bandwidth Produce	f_T	$V_{CE} = -5V, I_C = -10 mA$	100	190		MHz
Noise Figure	NF	$V_{CE} = -5V, I_C = -0.2 mA$ $f = 1KHz, R_s = 2K\Omega$		0.7	10	dB

h_{EF} CLASSIFICATION

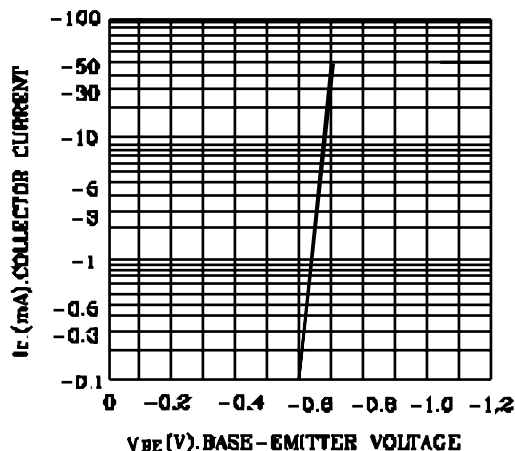
Classification	A	B	C	D
H _{FF}	60-150	100-300	200-600	400-1000

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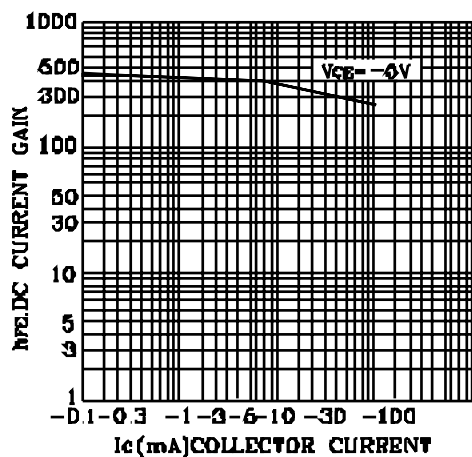
STATIC CHARACTERISTIC



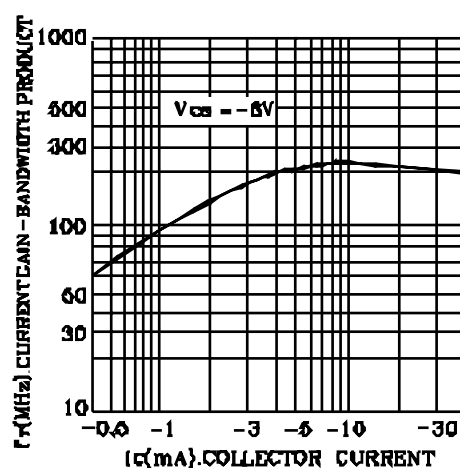
BASE-EMITTER VOLTAGE



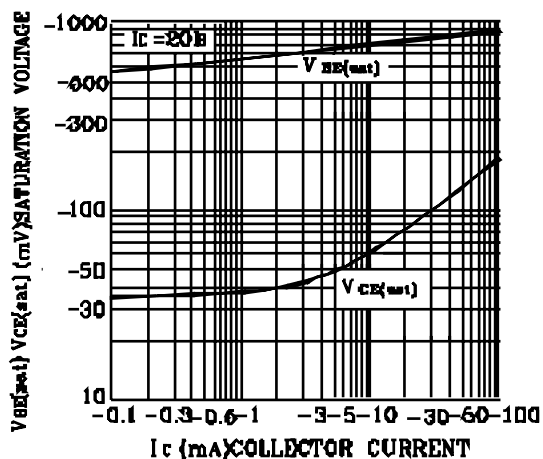
DC CURRENT GAIN



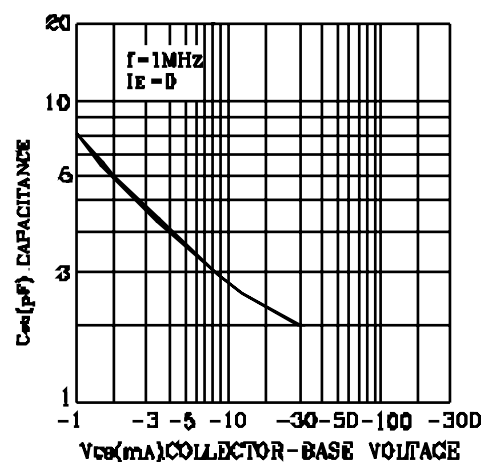
CURRENT GAIN-BANDWIDTH PRODUCT



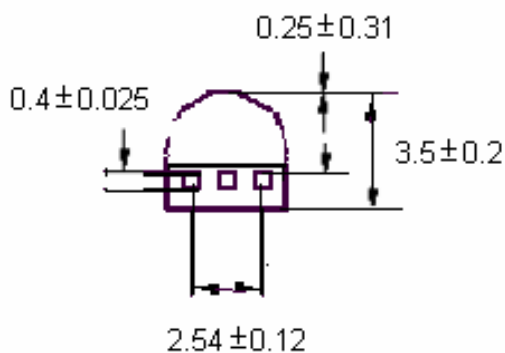
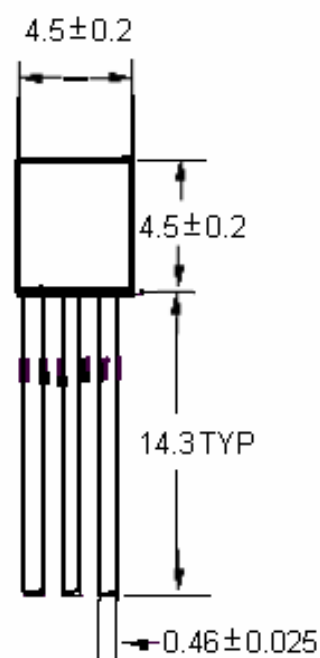
BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



COLLECTOR OUTPUT CAPACITANCE



TO-92 Unit:mm



SOT-23 Unit:mm

