PROMAX-JOHNTON

PJ2N9015

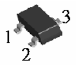
PNP Epitaxial Silicon Transistor

PRE-APLIFIER, LOW LEVEL&LOW NOISE

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

TO-92

SOT-23



Pin : 1. Emitter
2. Base
3. Collector

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ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)

Characteristic	Symbol	Rating	Uint
Collector Base Voltage	V_{CBO}	-50	V
Collector Emitter Voltage	V_{CEO}	-45	V
Emitter Base Voltage	V_{EBO}	-5	V
Collector Current	Ic	-100	mA
Collector Dissipation	Pc	450	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55 ~150	°C

ORDERING INFORMATION

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

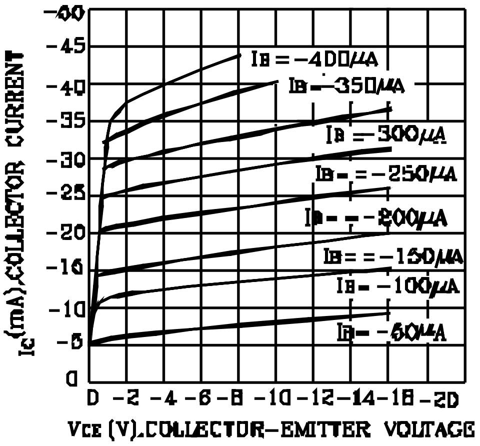
ELECTRICAL CHARACTERISTICS (Ta= 25 °C)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C= -100 μ 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 μ 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, Ic = -2 mA	-0.6	-0.65	-0.75	V
Output Capacitance	C_{ob}	V_{CB} = -10V, IE = 0 f=1MHz		4.5	7.0	pF
Current Gain Bandwidth Produce	f_T	V_{CE} = -5V, Ic = -10 mA	100	190		MHz
Noise Figure	NF	V_{CE} = -5V, Ic = -0.2 mA f=1KHz, Rs=2KΩ		0.7	10	dB

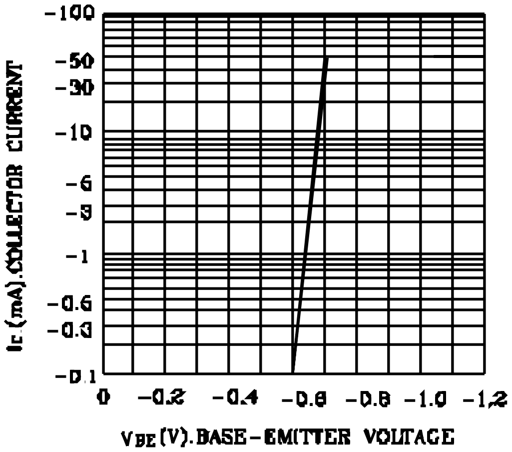
h_{EF} CLASSIFICATION

Classification	A	B	C	D
H_{FE}	60-150	100-300	200-600	400-1000

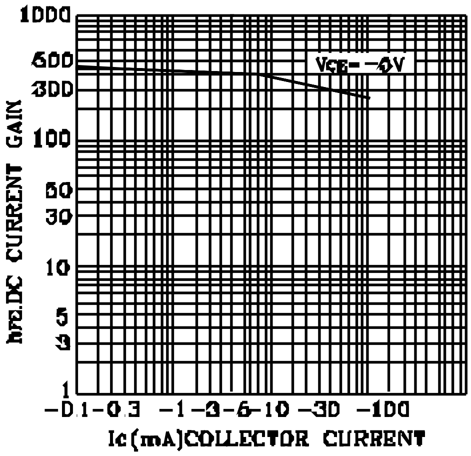
STATIC CHARACTERISTIC



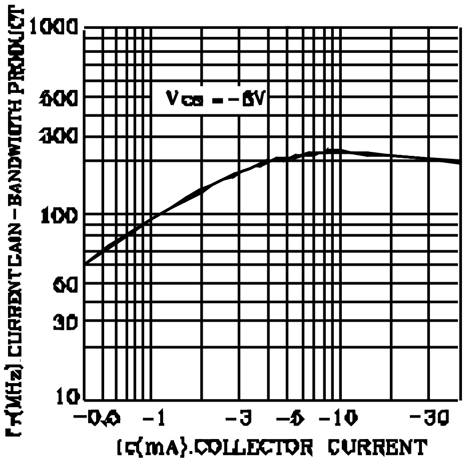
BASE-EMITTER VOLTAGE



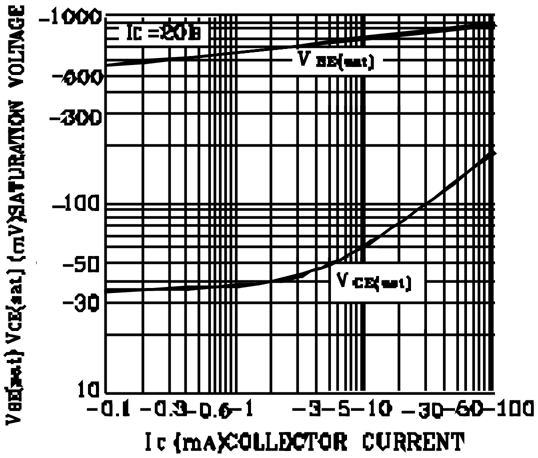
DC CURRENT GAIN



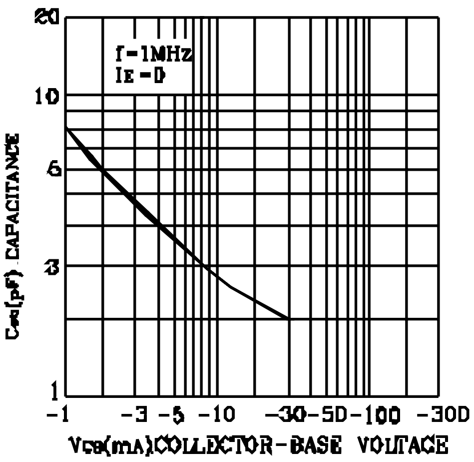
CURRENT GAIN-BANDWIDTH PRODUCT



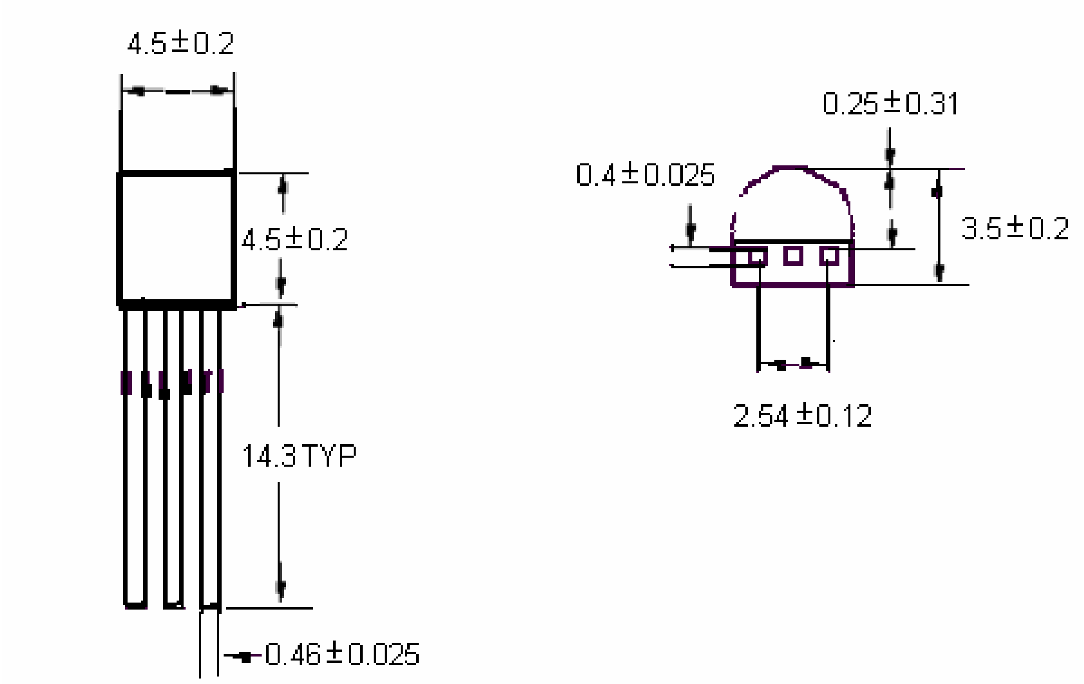
BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



COLLECTOR OUTPUT CAPACITANCE



TO-92 Unit:mm



SOT-23 Unit:mm