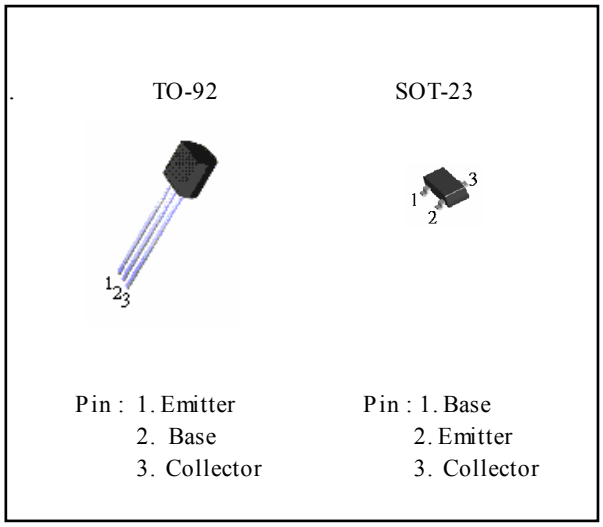
PJ2N3906

PNP Epitaxial Silicon Transistor

GENERAL PURPOSE TRANSISTOR

- Collector-Emitter Voltage: V_{CEO} = 40V
- Collector Dissipation: $P_{C\ (max)}$ = 625 mW



ABSOLUTE MAXIMUM RATINGS (Ta = 25 ℃)

Rating	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	200	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	T_j	150	℃
Storage Temperature	T_{stg}	-55~150	℃

ORDERING INFORMATION

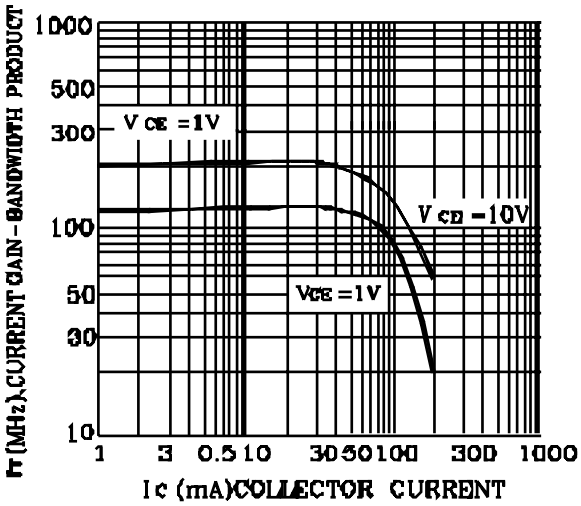
Device	Operating Temperature	Package
PJ2N3906CT	-20℃～+85℃	TO-92
PJ2N3906CX		SOT-23

ELECTRICAL CHARACTERISTICS (T_a = 25℃)

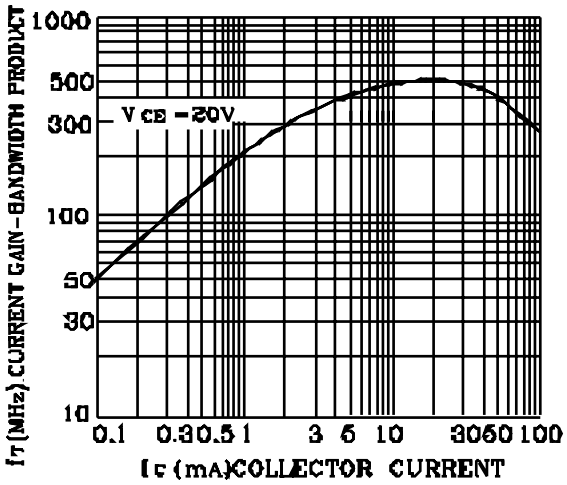
Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C= 10μA , I_E=0	40			V
*Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C= 1mA , I_B=0	40			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=10μA , I_C=0	6			V
Collector Cut-off Curent	I_{CEX}	V_{CE}= 30V , V_{BE} = 3V			50	nA
Base Cut-off Current	I_{BL}	V_{CE}= 30V , V_{BE} = 3V			50	nA
*DC Current Gain	h_{FE}	Ic =0.1mA, V_{CE} =1V	60			
		Ic =1mA, V_{CE} =1V	80			
		Ic=10mA; V_{CE} =1V	100		300	
		Ic =50 mA, V_{CE} =1V	60			
		Ic =100 mA, V_{CE} =1V	30			
*Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C= 10 mA , I_B=1mA			0.25	V
		I_C= 50mA , I_B=5mA			0.4	V
*Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C= 10 mA , I_B=1mA	0.65		0.85	V
		I_C= 50mA , I_B=5mA			0.95	V
Output Capacitance	C_{ob}	V_{CB} =5V, I_E =0 f=1MHz			4.5	pF
Current Gain Bandwidth Produce	f_T	Ic =10 mA, V_{CE} =20V f=100MHz	250			MHz
Turn On Time	t_{on}	Vcc =3 V, V_{BE} =0.5V Ic =10 mA, I_{B1} =1mA			70	ns
Turn Off Time	t_{off}	Vcc =3V, Ic =1mA I_{B1}=I_{B2}=1 mA			250	ns

*Pulse Test: Pulse Width ≤ 300μs.Duty Cycle ≤ 2%

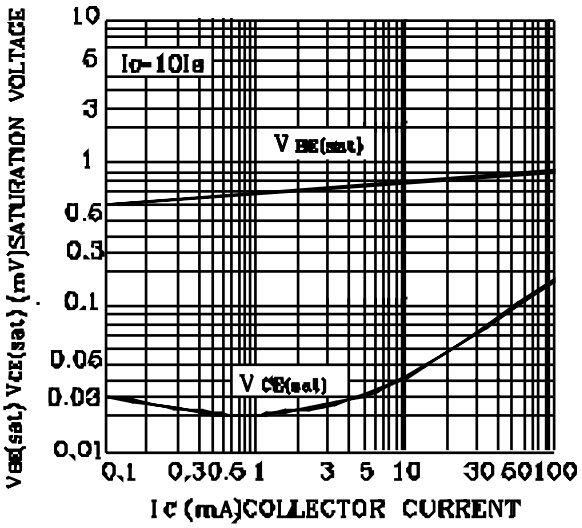
DC CURRENT GAIN



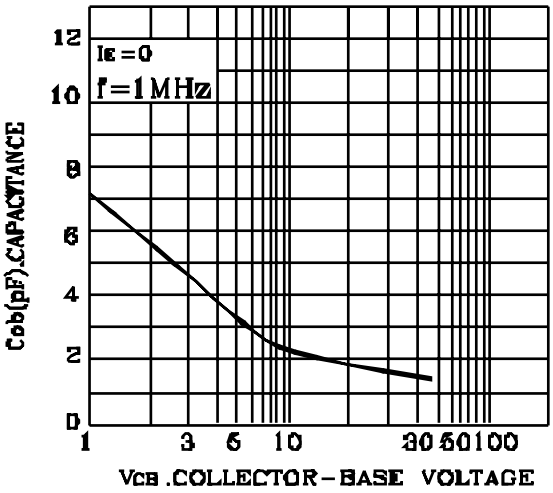
CURRENT GAIN-BANDWIDTH PRODUCT



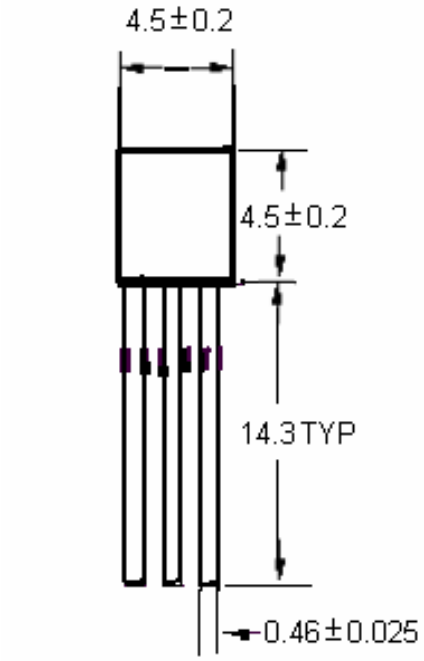
BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE

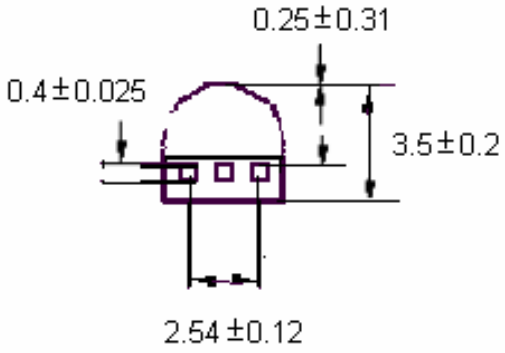


OUTPUT CAPACITANCE



TO-92 Unit:mm





SOT-23 Unit:mm