

GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

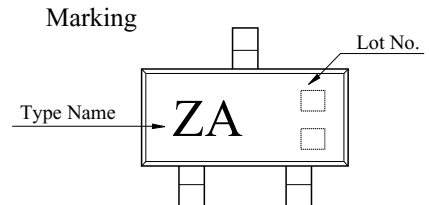
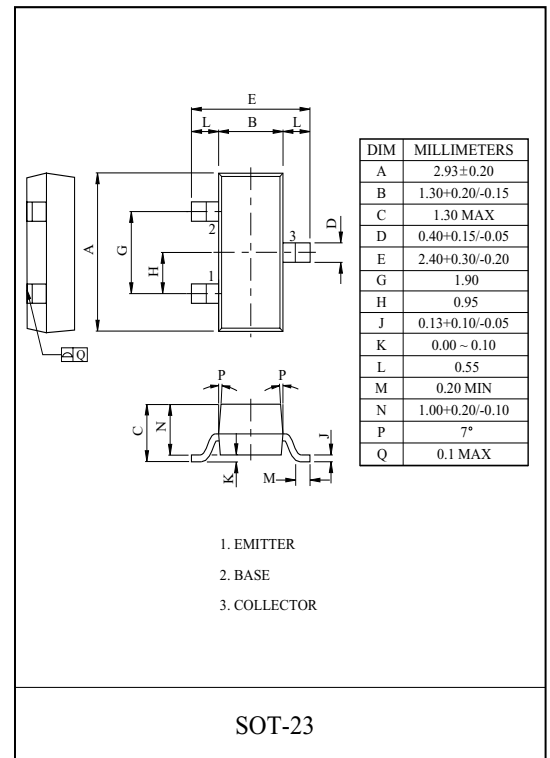
FEATURES

- Low Leakage Current
: $I_{CEX} = -50\text{nA}(\text{Max.})$, $I_{BL} = -50\text{nA}(\text{Max.})$
@ $V_{CE} = -30\text{V}$, $V_{EB} = -3\text{V}$.
- Excellent DC Current Gain Linearity.
- Low Saturation Voltage
: $V_{CE(\text{sat})} = -0.4\text{V}(\text{Max.})$ @ $I_C = -50\text{mA}$, $I_B = -5\text{mA}$.
- Low Collector Output Capacitance
: $C_{ob} = 4.5\text{pF}(\text{Max.})$ @ $V_{CB} = -5\text{V}$.
- Complementary to 2N3904S.

MAXIMUM RATING ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	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
Base Current	I_B	-50	mA
Collector Power Dissipation	P_C^*	350	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

Note : * Package Mounted On 99.5% Alumina $10 \times 8 \times 0.6\text{mm}$



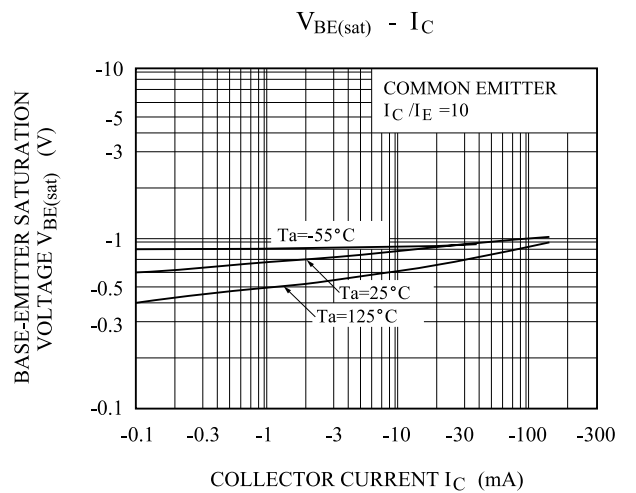
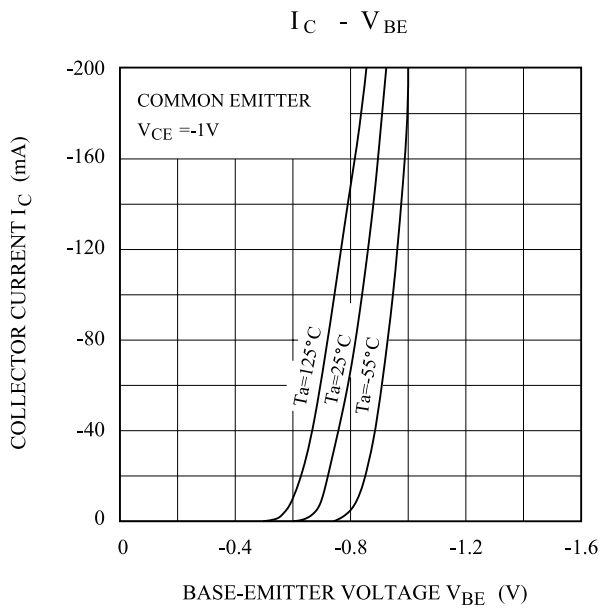
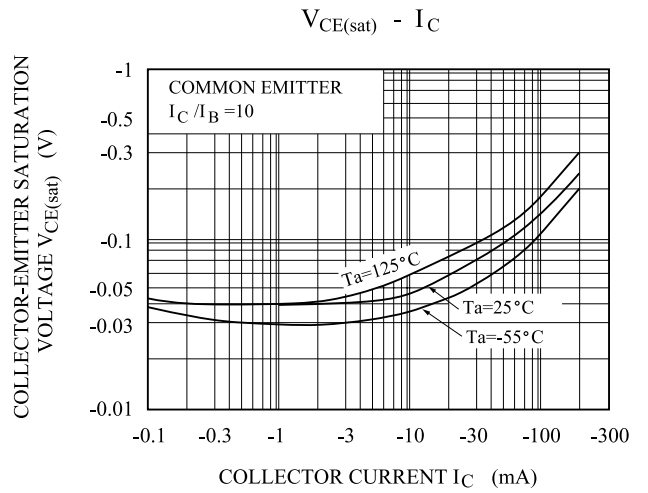
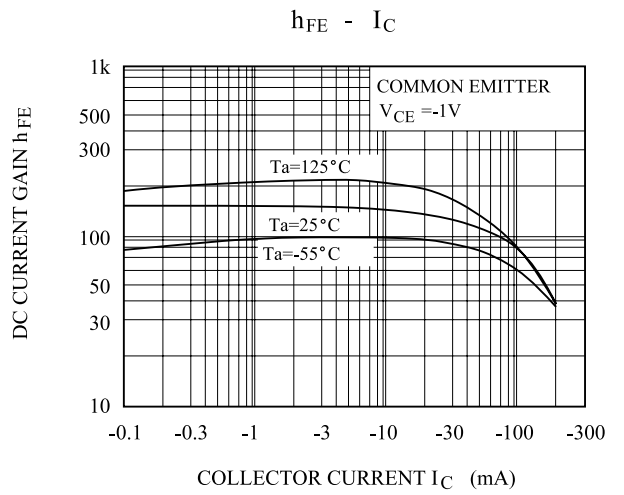
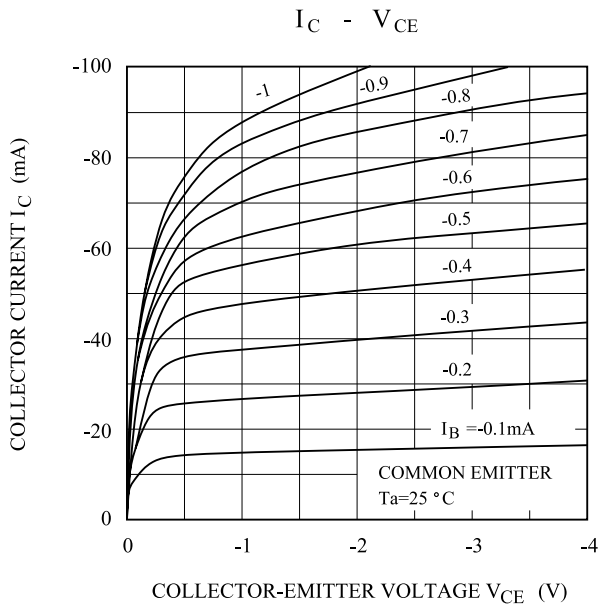
2N3906S

ELECTRICAL CHARACTERISTICS (Ta=25 °C)

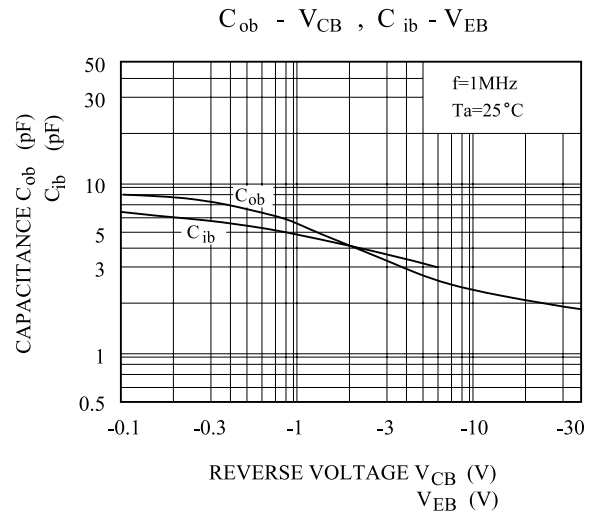
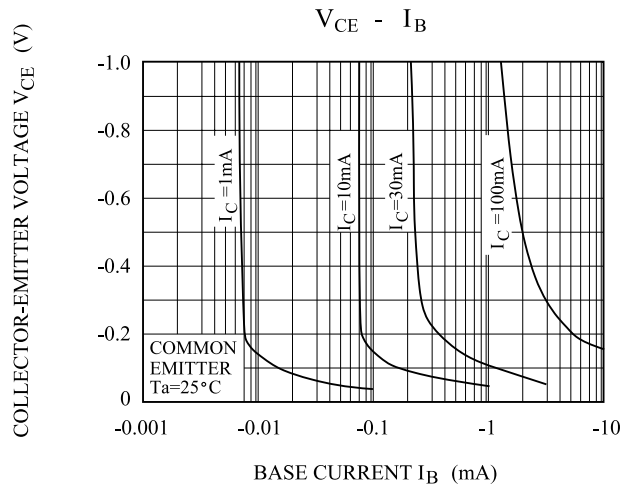
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CEX}	$V_{CE}=-30V, V_{EB}=-3V$	-	-	-50	nA
Base Cut-off Current		I_{BL}	$V_{CE}=-30V, V_{EB}=-3V$	-	-	-50	nA
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	$I_C=-10\mu A, I_E=0$	-40	-	-	V
Collector-Emitter Breakdown Voltage *		$V_{(BR)CEO}$	$I_C=-1mA, I_B=0$	-40	-	-	V
Emitter-Base Breakdown Voltage *		$V_{(BR)EBO}$	$I_E=-10\mu A, I_C=0$	-5.0	-	-	V
DC Current Gain	$h_{FE(1)}$	*	$V_{CE}=-1V, I_C=-0.1mA$	60	-	-	
	$h_{FE(2)}$		$V_{CE}=-1V, I_C=-1mA$	80	-	-	
	$h_{FE(3)}$		$V_{CE}=-1V, I_C=-10mA$	100	-	300	
	$h_{FE(4)}$		$V_{CE}=-1V, I_C=-50mA$	60	-	-	
	$h_{FE(5)}$		$V_{CE}=-1V, I_C=-100mA$	30	-	-	
Collector-Emitter Saturation Voltage *	$V_{CE(sat)1}$	*	$I_C=-10mA, I_B=-1mA$	-	-	-0.25	V
	$V_{CE(sat)2}$		$I_C=-50mA, I_B=-5mA$	-	-	-0.4	
Base-Emitter Saturation Voltage *	$V_{BE(sat)1}$	*	$I_C=-10mA, I_B=-1mA$	-0.65	-	-0.85	V
	$V_{BE(sat)2}$		$I_C=-50mA, I_B=-5mA$	-	-	-0.95	
Transition Frequency		f_T	$V_{CE}=-20V, I_C=-10mA, f=100MHz$	250	-	-	MHz
Collector Output Capacitance		C_{ob}	$V_{CB}=-5V, I_E=0, f=1MHz$	-	-	4.5	pF
Input Capacitance		C_{ib}	$V_{BE}=-0.5V, I_C=0, f=1MHz$	-	-	10	pF
Input Impedance		h_{ie}	$V_{CE}=-10V, I_C=-1mA, f=1kHz$	2.0	-	12	k
Voltage Feedback Ratio		h_{re}		1.0	-	10	$\times 10^{-4}$
Small-Signal Current Gain		h_{fe}		100	-	400	
Collector Output Admittance		h_{oe}		3.0	-	60	μ
Noise Figure		NF		$V_{CE}=-5V, I_C=-0.1mA,$ $R_g=1k\Omega, f=10Hz \text{ } 15.7kHz$	-	-	4.0
Switching Time	Delay Time	t_d		-	-	35	nS
	Rise Time	t_r		-	-	35	
	Storage Time	t_{stg}		-	-	225	
	Fall Time	t_f		-	-	75	

* Pulse Test : Pulse Width 300 μ s, Duty Cycle 2%.

2N3906S



2N3906S



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Bipolar Transistors - BJT category](#):

Click to view products by [KEC manufacturer](#):

Other Similar products are found below :

[619691C](#) [MCH4017-TL-H](#) [MMBT-2369-TR](#) [BC546/116](#) [BC557/116](#) [BSW67A](#) [NJVMJD148T4G](#) [NTE123AP-10](#) [NTE153MCP](#) [NTE16](#)
[NTE195A](#) [NTE92](#) [C4460](#) [2N4401-A](#) [2N6728](#) [2SA1419T-TD-H](#) [2SA2126-E](#) [2SB1204S-TL-E](#) [2SC2712S-GR,LF](#) [2SC5488A-TL-H](#)
[2SD2150T100R](#) [SP000011176](#) [2N2907A](#) [2N3904-NS](#) [2N5769](#) [2SC2412KT146S](#) [2SD1816S-TL-E](#) [CPH6501-TL-E](#) [MCH4021-TL-E](#)
[MJE340](#) [US6T6TR](#) [NJL0281DG](#) [732314D](#) [CPH3121-TL-E](#) [CPH6021-TL-H](#) [873787E](#) [IMZ2AT108](#) [UMX21NTR](#) [MCH6102-TL-E](#)
[NJL0302DG](#) [2N3583](#) [30A02MH-TL-E](#) [NSV40301MZ4T1G](#) [NTE13](#) [NTE26](#) [NTE282](#) [NTE323](#) [NTE350](#) [NTE81](#) [STX83003-AP](#)