

SOT-23 Plastic-Encapsulate Transistors

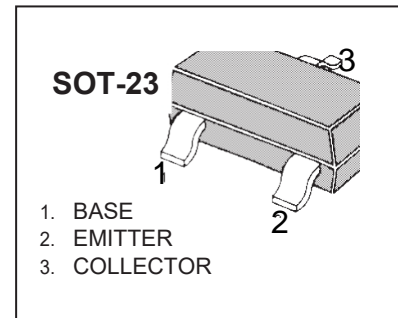
2SC2881 TRANSISTOR (NPN)

FEATURES

- Small Flat Package
- High Transition Frequency
- High Voltage
- Complementary to 2SA1201

APPLICATIONS

- Power Amplifier and Voltage Amplifier



Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CB0}	120	V
Collector Emitter Voltage	V_{CEO}	120	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	800	mA
Base Current	I_B	160	mA
Collector Power Dissipation	P_C	0.3	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

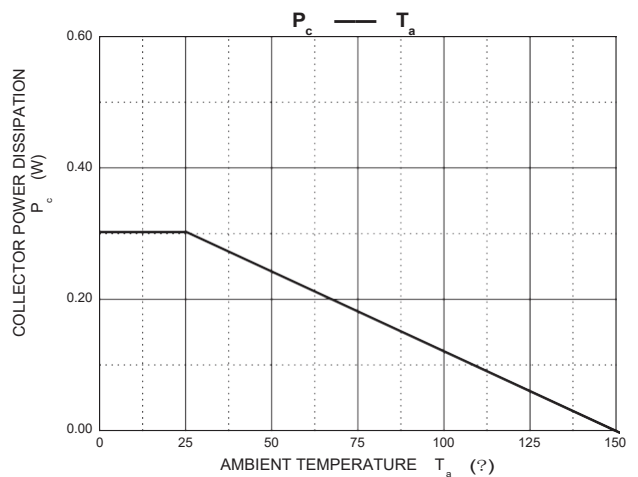
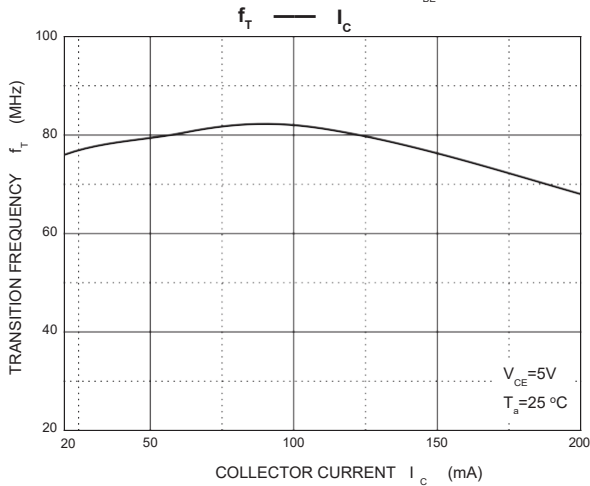
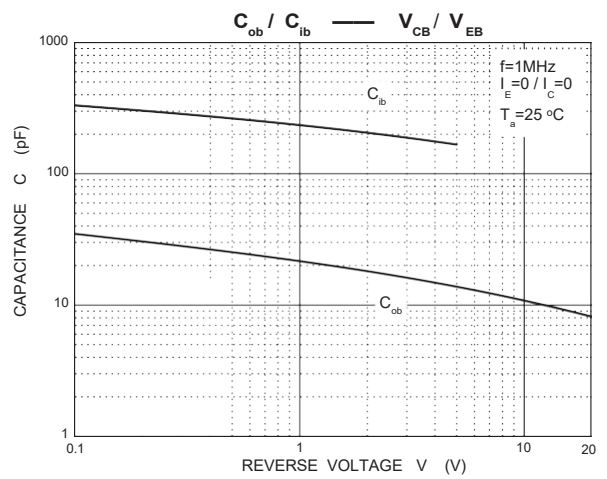
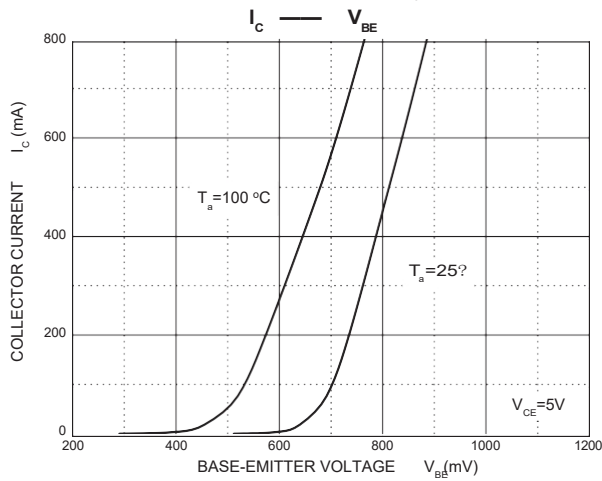
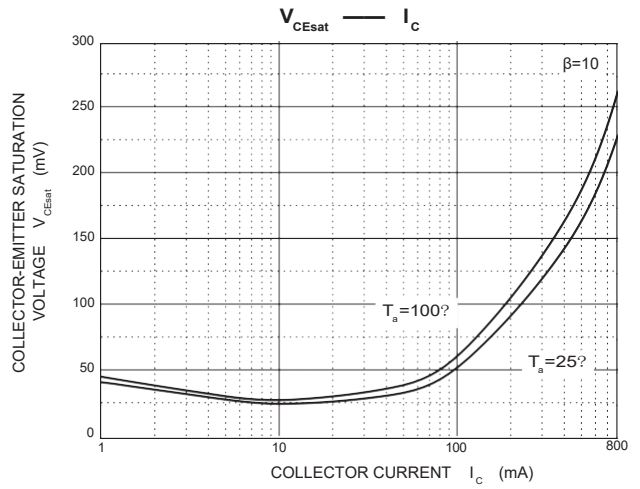
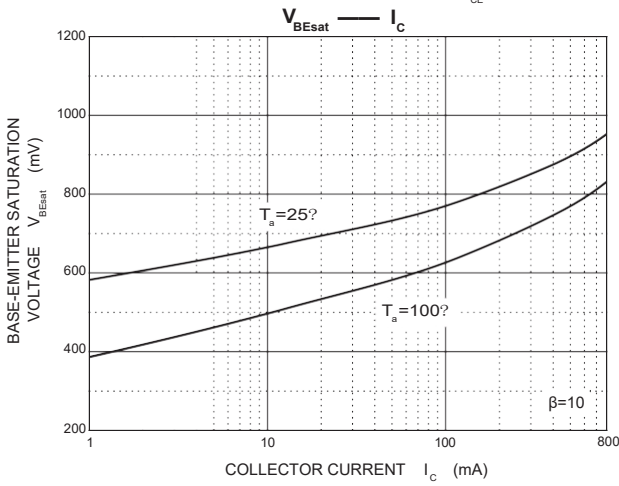
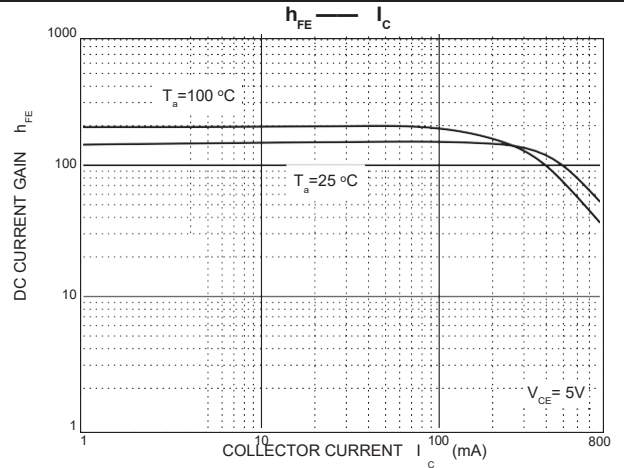
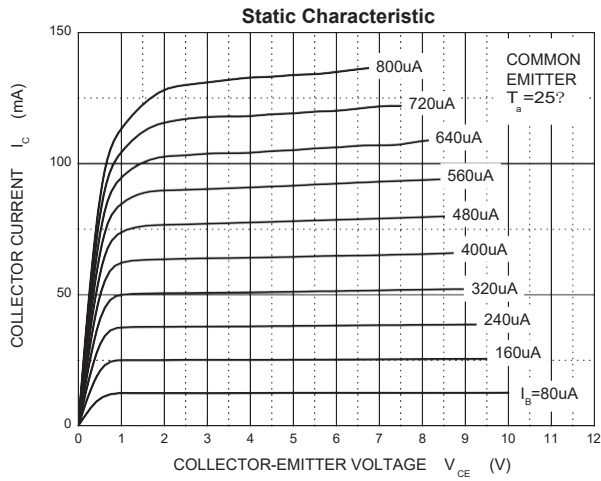
Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $V_{CE} = 5\text{ V}$, $I_C = 100\text{ mA}$	Current Gain Group O	h_{FE}	80	-	160	-
	Y	h_{FE}	120	-	240	-
Collector Base Cutoff Current at $V_{CB} = 120\text{ V}$	I_{CB0}	-	-	100	nA	
Emitter Base Cutoff Current at $V_{EB} = 5\text{ V}$	I_{EBO}	-	-	100	nA	
Collector Emitter Breakdown Voltage at $I_C = 1\text{ mA}$	$V_{(BR)CEO}$	120	-	-	V	
Emitter Base Breakdown Voltage at $I_E = 1\text{ mA}$	$V_{(BR)EBO}$	5	-	-	V	
Collector Emitter Saturation Voltage at $I_C = 500\text{ mA}$, $I_B = 50\text{ mA}$	$V_{CE(sat)}$	-	-	1	V	
Base Emitter on Voltage at $V_{CE} = 5\text{ V}$, $I_C = 500\text{ mA}$	$V_{BE(on)}$	-	-	1	V	
Transition Frequency at $V_{CE} = 5\text{ V}$, $I_C = 100\text{ mA}$	f_T	-	120	-	MHz	
Collector Output Capacitance at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	-	30	pF	

CLASSIFICATION OF h_{FE}

RANK	O	Y
RANGE	80 - 160	120 - 240
MARKING	CO1	CY1

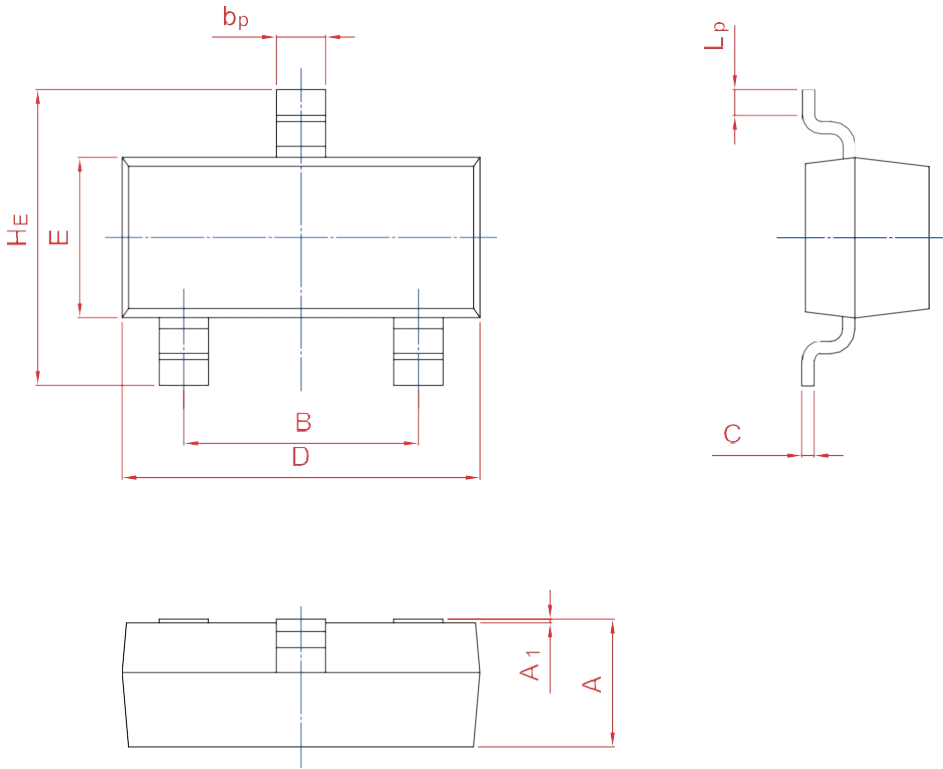
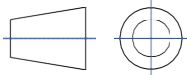
Typical Characteristics



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	b _p	C	D	E	HE	A ₁	L _p
mm	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20