

TRANSISTOR PNP

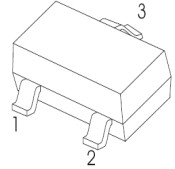
SOT-23 Plastic-Encapsulate Transistors

FEATURES

- High Collector Current
- Complementary to SS8050
- AEC-Q101 qualified (Automotive grade with suffix "Q".)

MARKING: Y2

SOT - 23



1. BASE

2. EMITTER

3. COLLECTOR

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-1.5	A
P_C	Collector Power Dissipation	300	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	417	$^\circ\text{C}/\text{W}$
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~+150	$^\circ\text{C}$

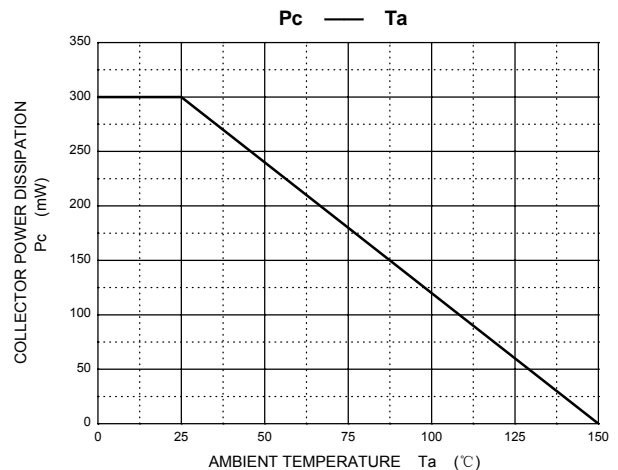
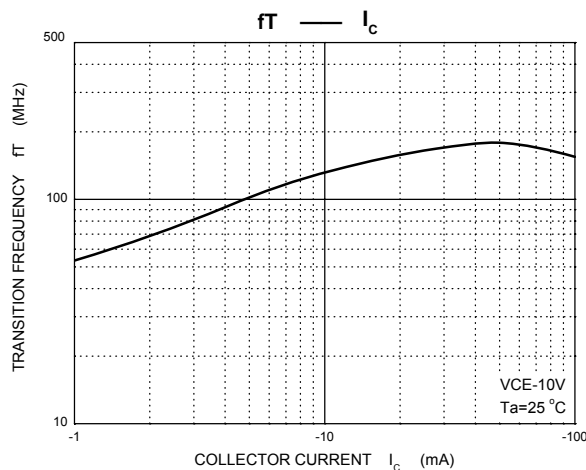
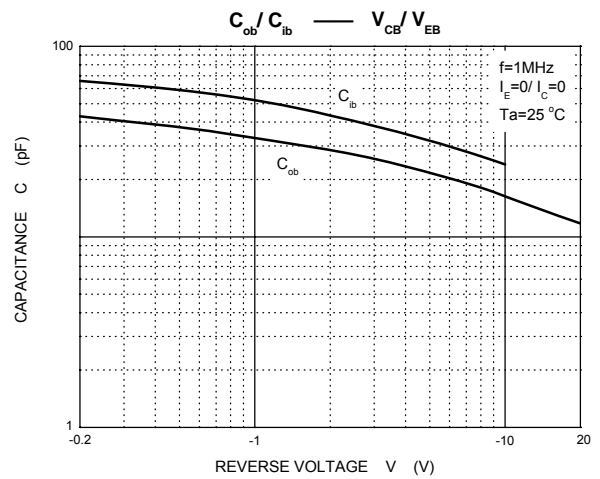
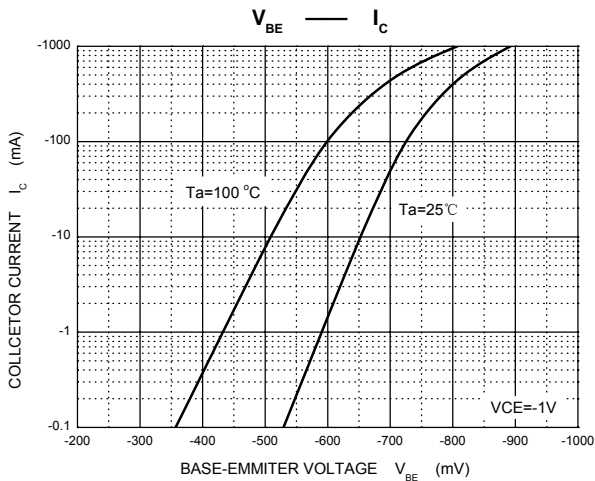
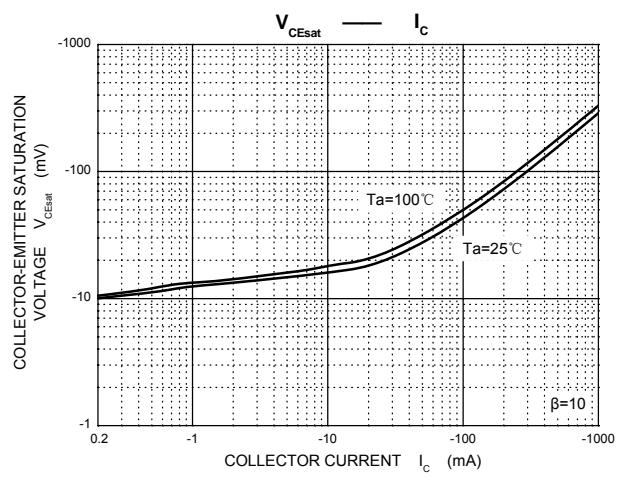
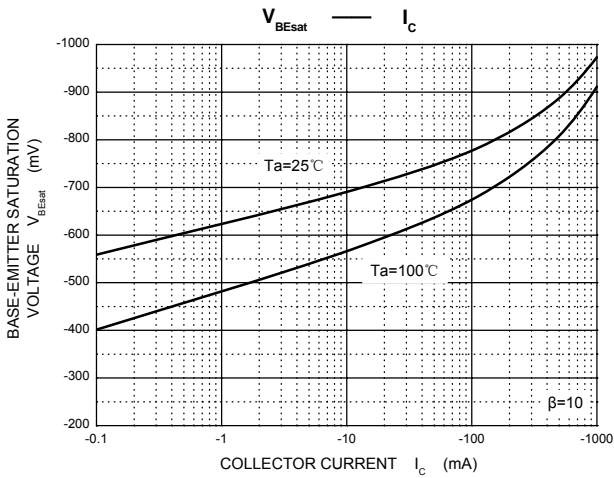
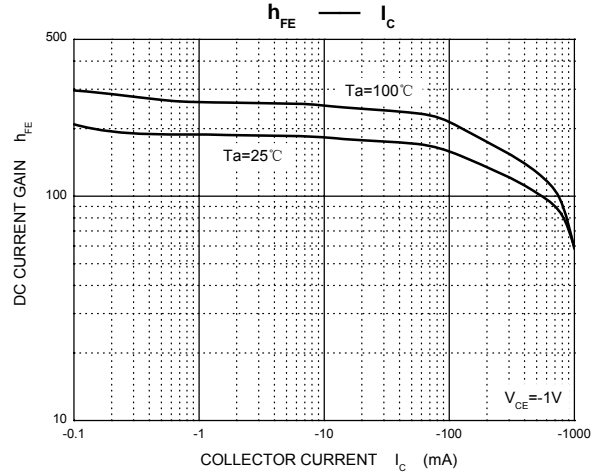
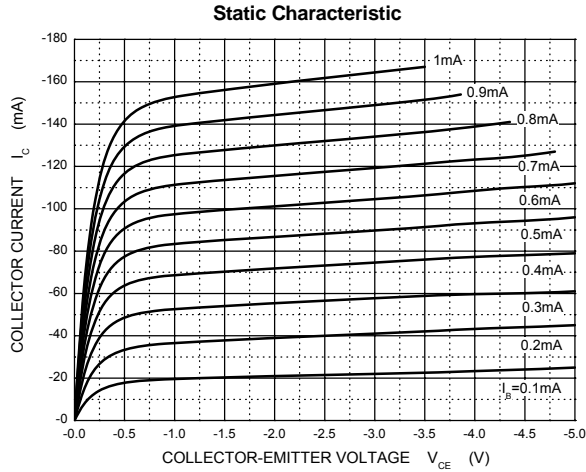
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}$, $I_E=0$	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-0.1\text{mA}$, $I_B=0$	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}$, $I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-40\text{V}$, $I_E=0$			-100	nA
Collector cut-off current	I_{CEO}	$V_{CE}=-20\text{V}$, $I_B=0$			-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=-5\text{V}$, $I_C=0$			-100	nA
DC current gain	$h_{FE(1)}$	$V_{CE}=-1\text{V}$, $I_C=-100\text{mA}$	200		350	
	$h_{FE(2)}$	$V_{CE}=-1\text{V}$, $I_C=-800\text{mA}$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-800\text{mA}$, $I_B=-80\text{mA}$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-800\text{mA}$, $I_B=-80\text{mA}$			-1.2	V
Base-emitter voltage	V_{BE}	$V_{CE}=-1\text{V}$, $I_C=-10\text{mA}$			-1	V
Transition frequency	f_T	$V_{CE}=-10\text{V}$, $I_C=-50\text{mA}$, $f=30\text{MHz}$	100			MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10\text{V}$, $I_E=0$, $f=1\text{MHz}$			20	pF

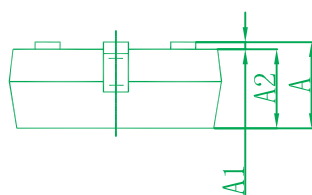
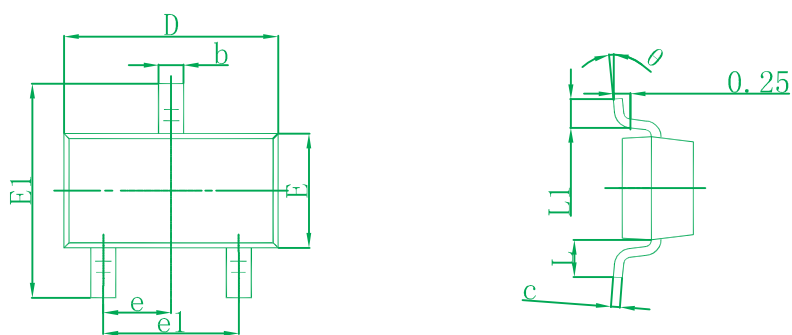
CLASSIFICATION OF $h_{FE(1)}$

RANGE	200 - 350
MARKING	Y2

Typical Characteristics

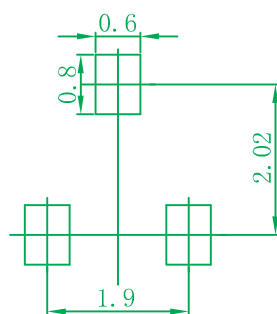


SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.150	0.035	0.045
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

SOT-23 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

Ordering information

Device	Package	Shipping
SS8550	SOT-23	3000/Tape&Reel(7inches)