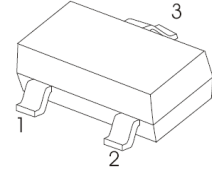


SOT-23 Plastic-Encapsulate Transistors

TRANSISTOR (PNP)

SOT-23

1. BASE
2. EMITTER
3. COLLECTOR



FEATURES

- ✧ Complementary to S9014

MARKING: M6

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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-45	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_{C}	Collector Current	-100	mA
P_{C}	Collector Power Dissipation	200	mW
$R_{\theta\text{JA}}$	Thermal Resistance From Junction To Ambient	625	$^{\circ}\text{C/W}$
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	$V_{(\text{BR})\text{CBO}}$	$I_{\text{C}} = -100\mu\text{A}$, $I_{\text{E}} = 0$	-50			V
Collector-emitter breakdown voltage	$V_{(\text{BR})\text{CEO}}$	$I_{\text{C}} = -0.1\text{mA}$, $I_{\text{B}} = 0$	-45			V
Emitter-base breakdown voltage	$V_{(\text{BR})\text{EBO}}$	$I_{\text{E}} = -100\mu\text{A}$, $I_{\text{C}} = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{\text{CB}} = -50\text{V}$, $I_{\text{E}} = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{\text{EB}} = -5\text{V}$, $I_{\text{C}} = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{\text{CE}} = -5\text{V}$, $I_{\text{C}} = -1\text{mA}$	200		1000	
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}} = -100\text{mA}$, $I_{\text{B}} = -10\text{mA}$			-0.3	V
Base-emitter saturation voltage	$V_{\text{BE(sat)}}$	$I_{\text{C}} = -100\text{mA}$, $I_{\text{B}} = -10\text{mA}$			-1	V
Transition frequency	f_{T}	$V_{\text{CE}} = -5\text{V}$, $I_{\text{C}} = -10\text{mA}$ $f = 30\text{MHz}$	150			MHz

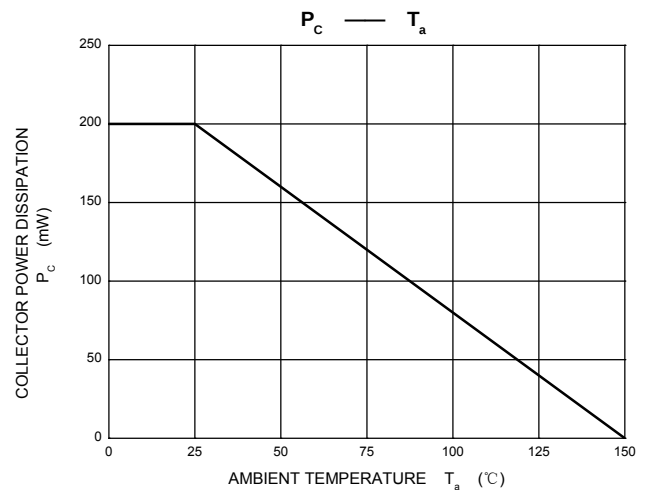
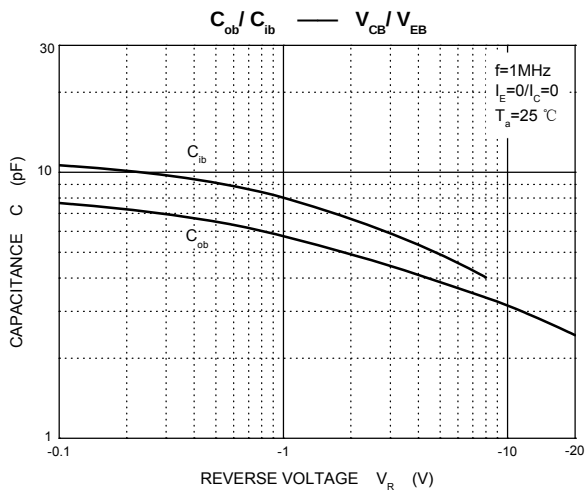
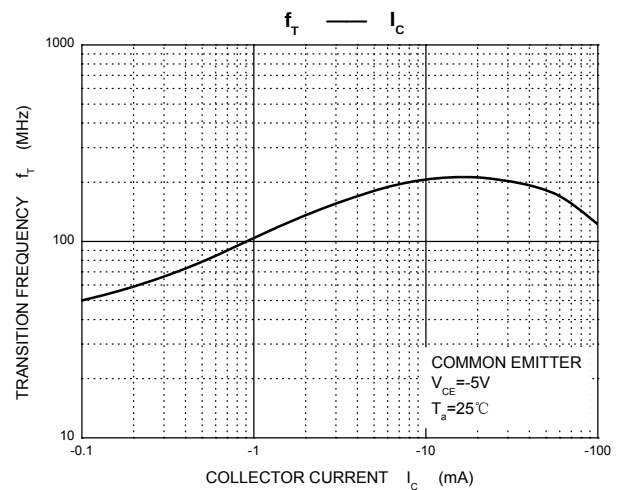
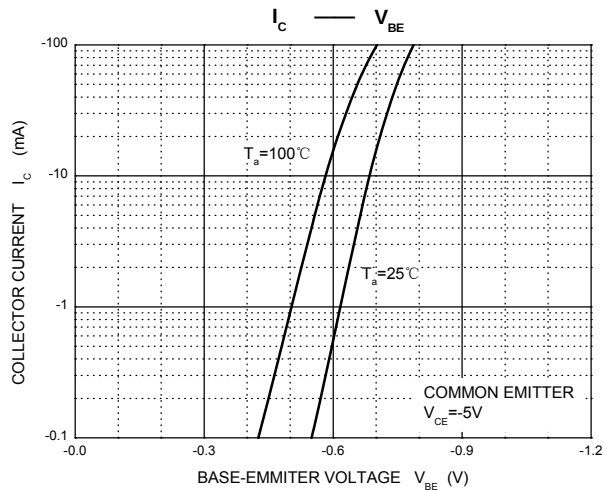
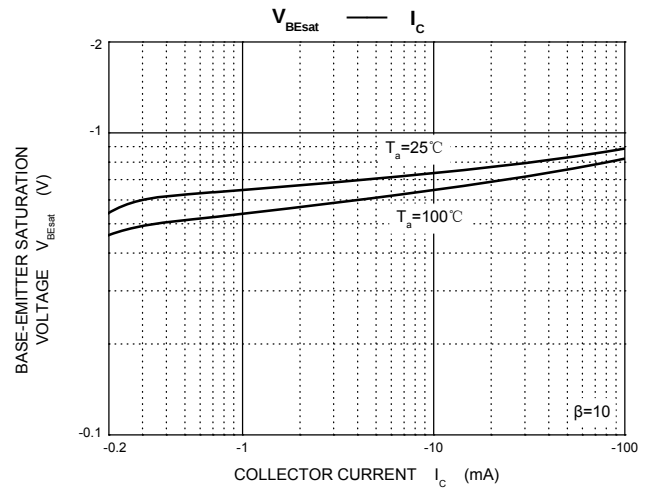
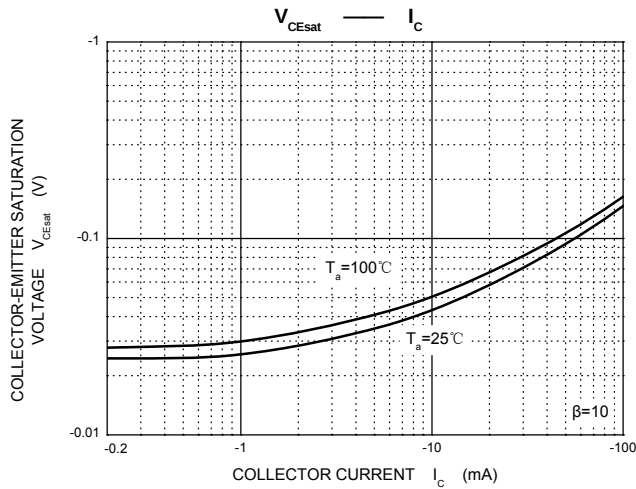
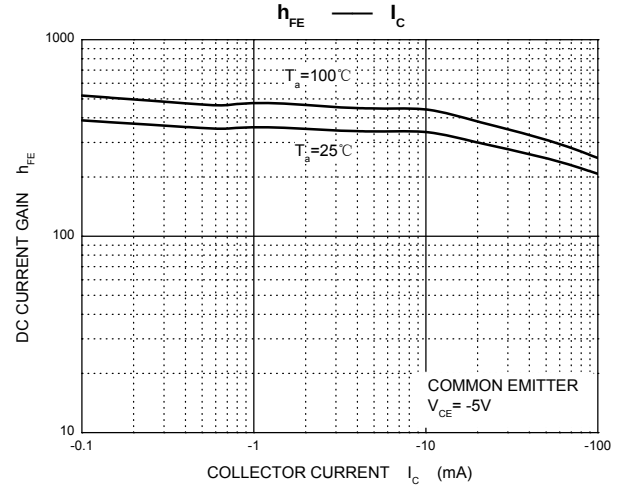
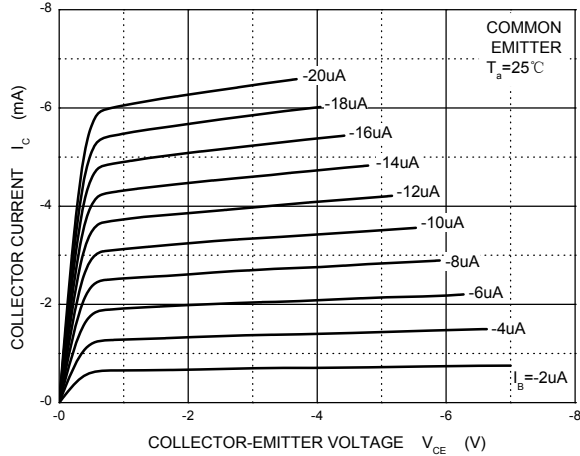
CLASSIFICATION OF h_{FE}

Rank	L	H
Range	200-450	400-1000



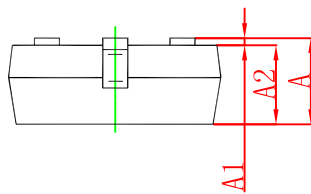
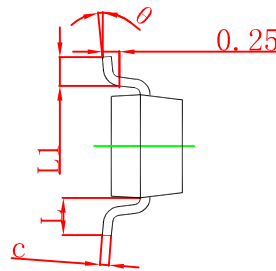
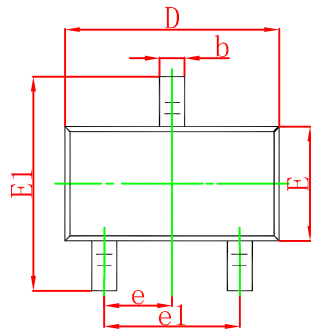
SOT-23 Plastic-Encapsulate Transistors

Static Characteristic



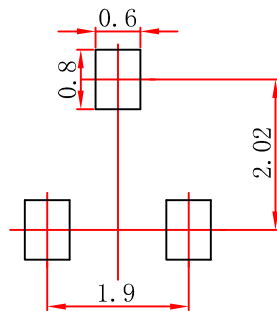


SOT-23 Plastic-Encapsulate Transistors



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	1.050	0.035	0.041
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 Package Outline Dimensions



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.