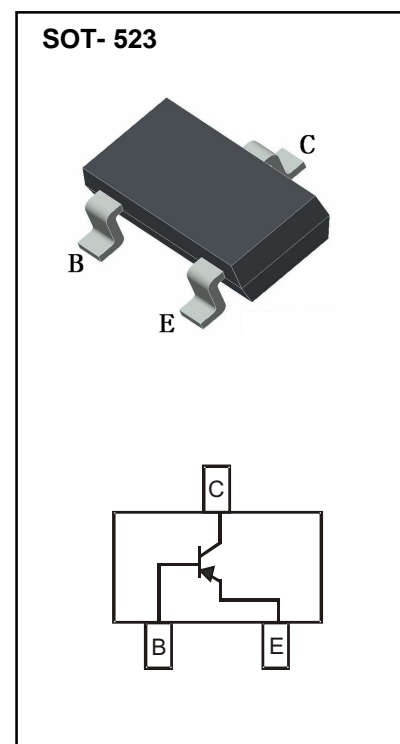


SOT-523 Plastic-Encapsulate Transistors TRANSISTOR(PNP)

Features

- Complementary to MMBT5551T
- Ideal for Medium Power Amplification and Switching

Marking:2L



Limiting Values (Absolute Maximum Rating)

Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	-160	V
V_{CEO}	Collector-Emitter Voltage	-150	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-600	mA
P_C	Collector Power Dissipation	150	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	833	$^{\circ}C/W$
T_j	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature	-55~+150	$^{\circ}C$

Electrical Characteristics (Ta=25 $^{\circ}C$ Unless otherwise specified)

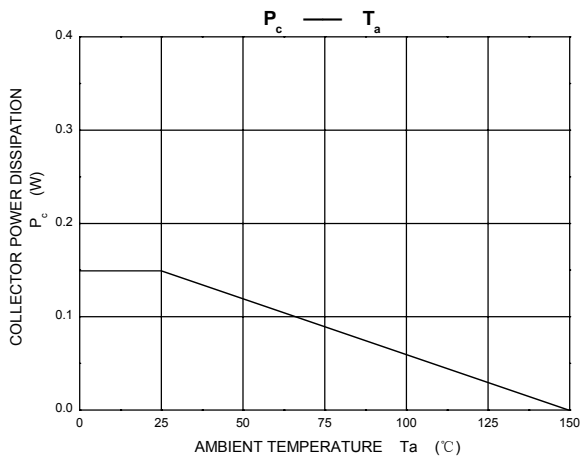
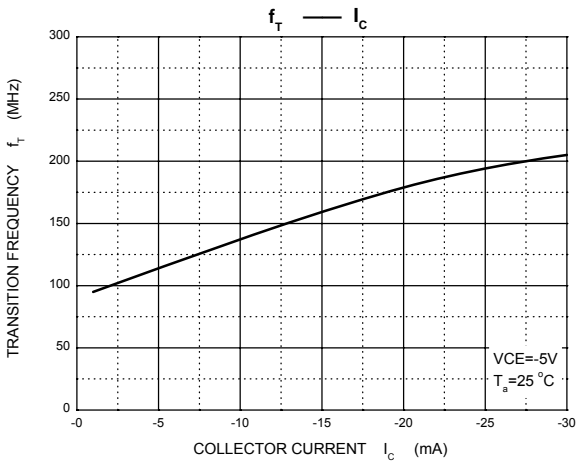
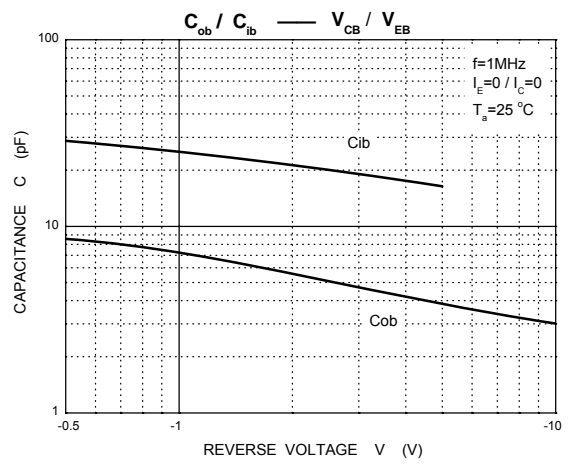
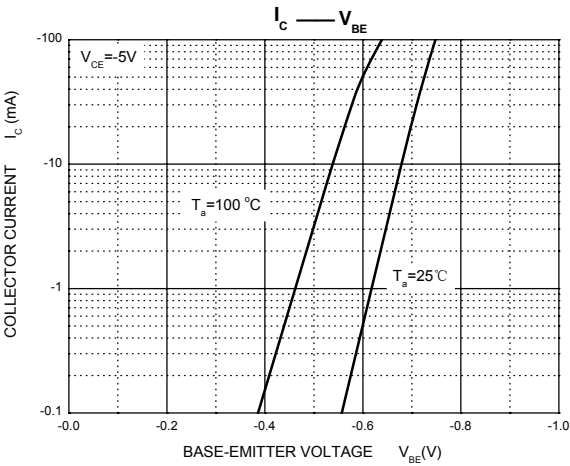
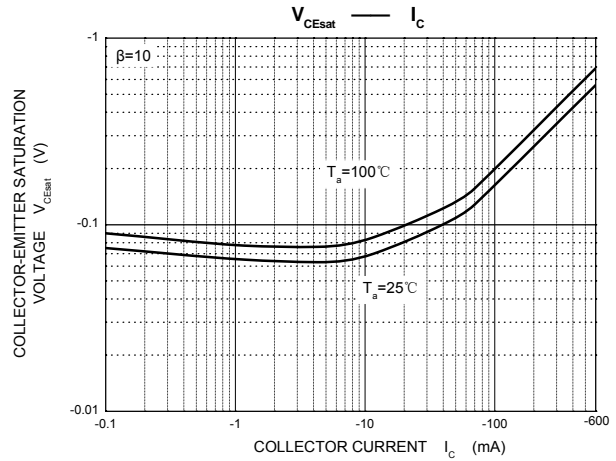
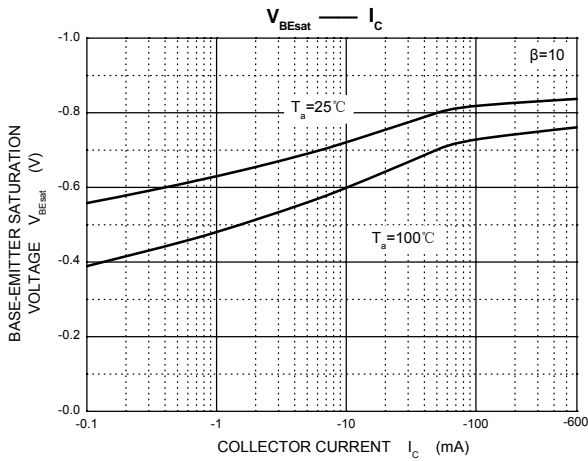
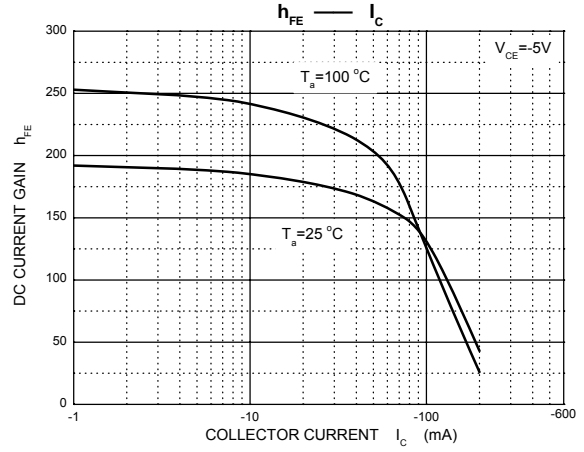
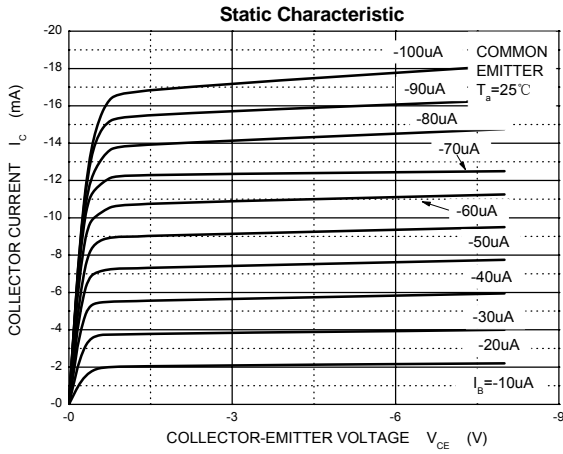
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu A, I_E=0$	-160			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}^*$	$I_C=-1mA, I_B=0$	-150			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-10\mu A, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-120V, I_E=0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4V, I_C=0$			-0.1	μA
DC current gain	$h_{FE(1)}^*$	$V_{CE}=-5V, I_C=-1mA$	80			
	$h_{FE(2)}^*$	$V_{CE}=-5V, I_C=-10mA$	100		300	
	$h_{FE(3)}^*$	$V_{CE}=-5V, I_C=-50mA$	50			
Collector-emitter saturation voltage	$V_{CE(sat)1}^*$	$I_C=-10mA, I_B=-1mA$			-0.2	V
	$V_{CE(sat)2}^*$	$I_C=-50mA, I_B=-5mA$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)1}^*$	$I_C=-10mA, I_B=-1mA$			-1	V
	$V_{BE(sat)2}^*$	$I_C=-50mA, I_B=-5mA$			-1	V
Transition frequency	f_T	$V_{CE}=-5V, I_C=-10mA, f=30MHz$	100			MHz

*Pulse test: pulse width $\leq 300\mu s$, duty cycle $\leq 2.0\%$.

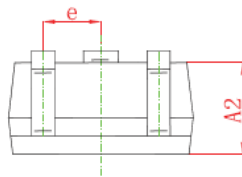
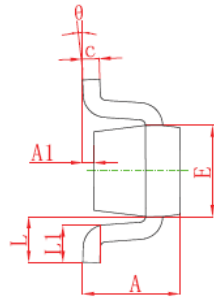
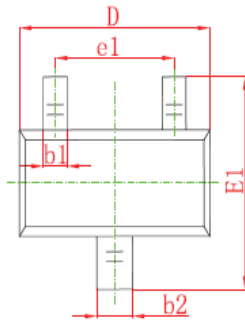
CLASSIFICATION OF h_{FE}

RANK	L	H
RANGE	100-200	200-300

Typical Characteristics

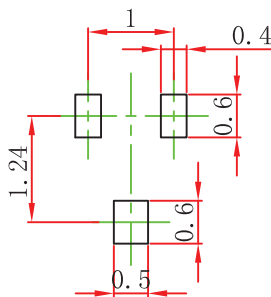


SOT-523 Package Outline Dimensions



Symbol	Dimensions In Millimeters	
	Min	Max
A	0.700	0.900
A1	0.000	0.100
A2	0.700	0.800
b1	0.150	0.250
b2	0.250	0.350
C	0.100	0.200
D	1.500	1.700
E	0.700	0.900
E1	1.450	1.750
e	0.500 TYP	
e1	0.900	1.100
L	0.400 REF	
L1	0.260	0.460
θ	0°	8°

SOT-523 Suggested Pad Layout



Note:

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

NOTICE

JSKD reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JSKD does not assume any liability arising out of the application or use of any product described herein.