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2SC3052 TRANSISTOR (NPN)

SOT-23 Plastic-Encapsulate Transistors

产品规格书

承认书

客户确认：				公司签章：
部门	工程部	品保部	采购部	
签名				
日期				

SHENZHEN HAOCHANG SEMICONDUCTOR CO.,LTD.

SOT-23 Plastic-Encapsulate Transistors

SOT-23

1. BASE
2. EMITTER
3. COLLECTOR

2SC3052 TRANSISTOR (NPN)

FEATURES

- Low collector to emitter saturation voltage
  $V_{CE(sat)}$=0.3V max(@I_C=100mA,I_B=10mA)
- Excellent linearity of DC forward current gain

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector- Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	0.2	A
P_C	Collector Power Dissipation	150	mW
T_J	Junction Temperature	125	℃
T_{stg}	Storage Temperature	-55-125	℃

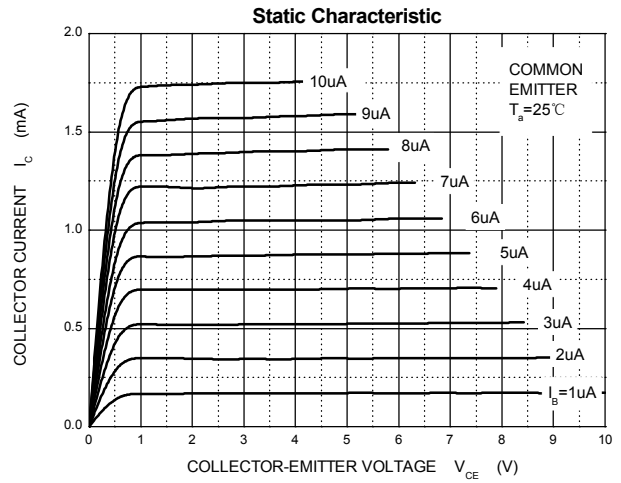
ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

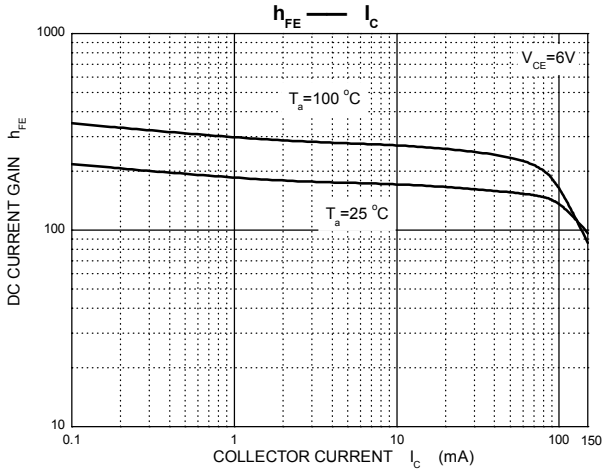
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = 100 μA, I_E=0	50		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 100 μA, I_B=0	50		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= 100 μA, I_C=0	6		V
Collector cut-off current	I_{CBO}	V_{CB}= 50 V , I_E=0		0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}= 6V , I_C=0		0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}= 6V, I_C= 1mA	150	800	
	$h_{FE(2)}$	V_{CE}= 6V, I_C= 0.1mA	50		
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=100mA, I_B= 10mA		0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C= 100mA, I_B= 10mA		1	V
Transition frequency	f_T	V_{CE}= 6V, I_C= 10mA	180		MHz
Collector output capacitance	C_{ob}	V_{CE}=6V, I_E=0, f=1MHz		4	pF
Noise figure	NF	V_{CE}=6V,I_E=-0.1mA, f=1KHz, R_G=2KΩ		15	dB

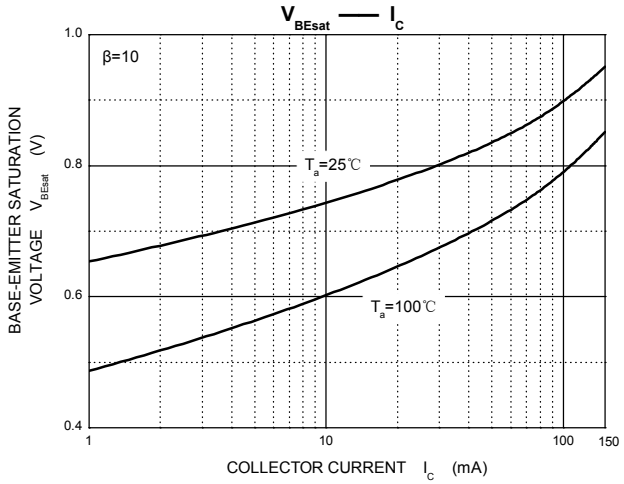
CLASSIFICATION OF $h_{FE(1)}$

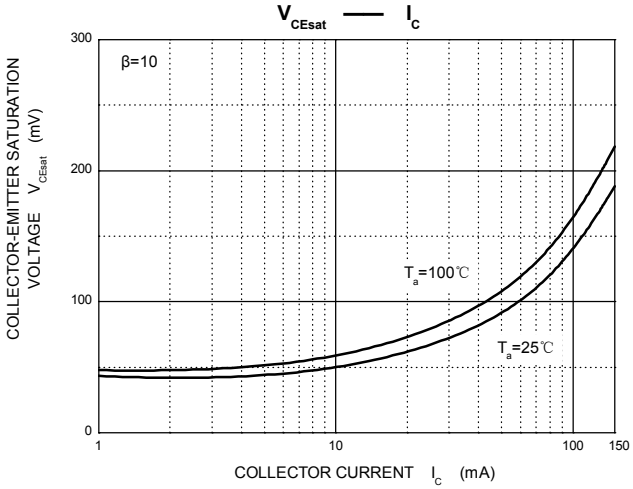
Rank	E	F	G
Range	150~300	250~500	400~800
Marking	LE	LF	LG

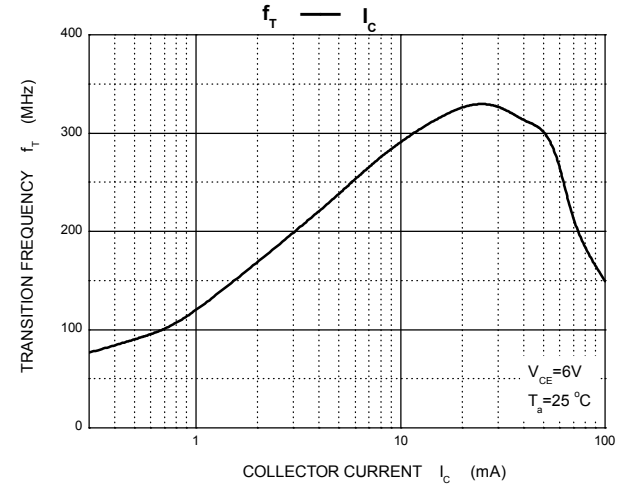
Typical Characteristics

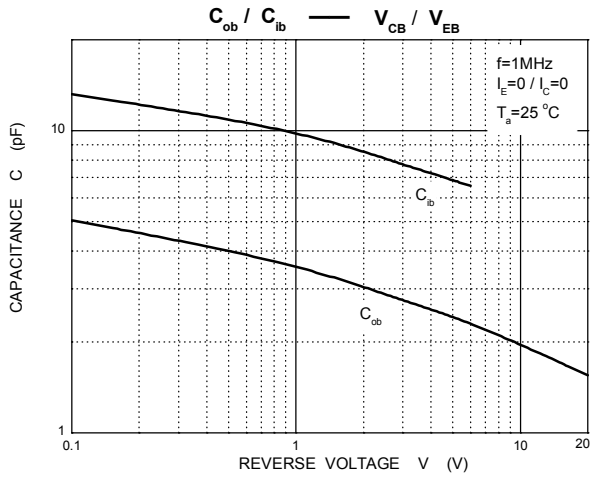


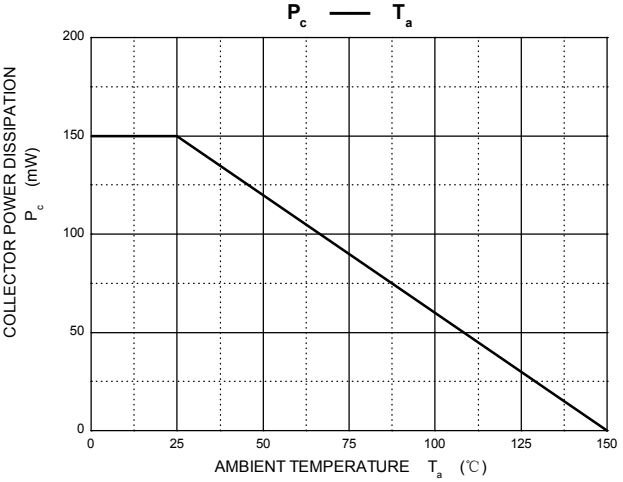




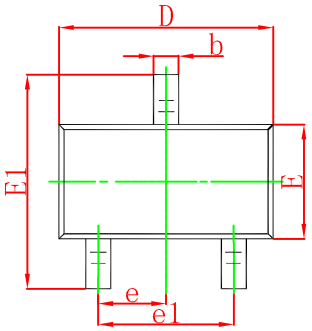


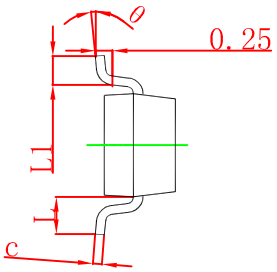


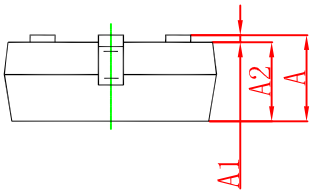




SOT-23 Package Outline Dimensions

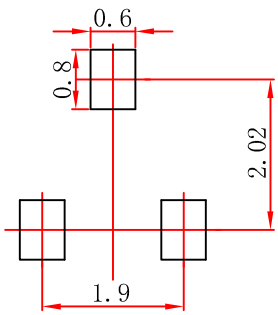






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 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 Suggested Pad Layout



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