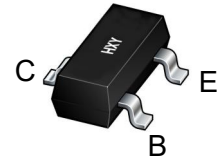




## FEATURES

- Collector Current:  $I_C=0.1A$
- Power Dissipation of 200mw

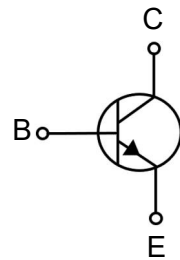


SOT-23

## Package Marking and Ordering Information

Product ID	Pack	Qty(PCS)
2SC3356	SOT-23	3000

Marking		
50-100	80-160	125-250
R23	R24	R25



## MAXIMUM RATINGS (Ta=25 unless otherwise noted)

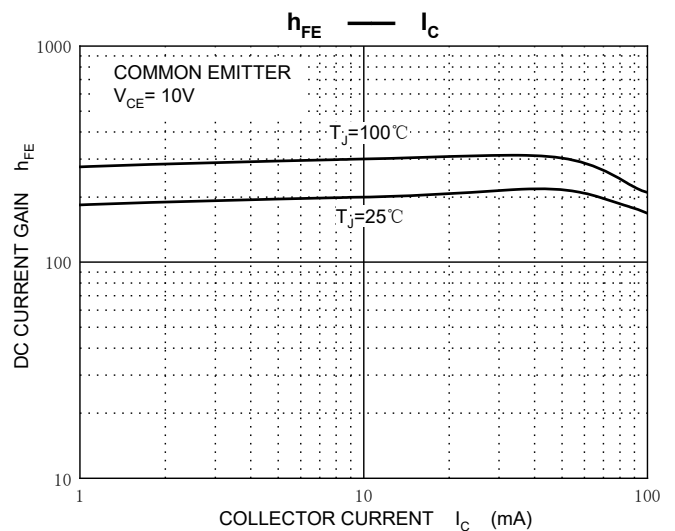
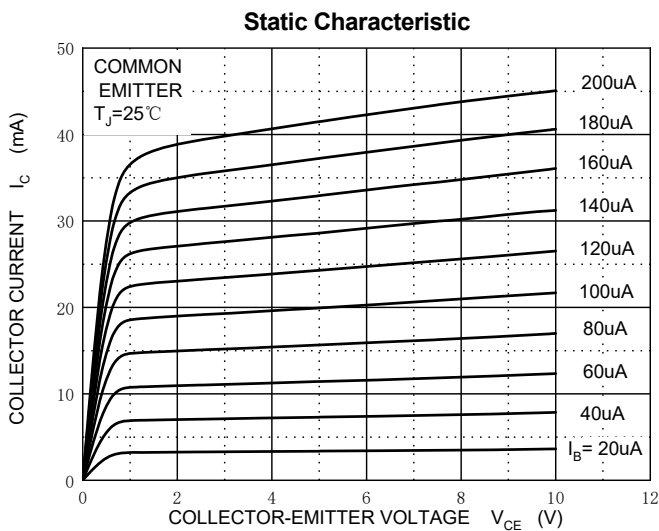
Parameter	Symbol	Limit	Unit
Collector-Base Voltage	$V_{CBO}$	20	V
Collector-Emitter Voltage	$V_{CEO}$	12	V
Emitter-Base Voltage	$V_{EBO}$	3	V
Collector Current	$I_C$	100	mA
Collector Power Dissipation	$P_C$	200	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	625	$^{\circ}C/W$
Junction Temperature	$T_J$	150	$^{\circ}C$
Storage Temperature	$T_{stg}$	-55~+150	$^{\circ}C$

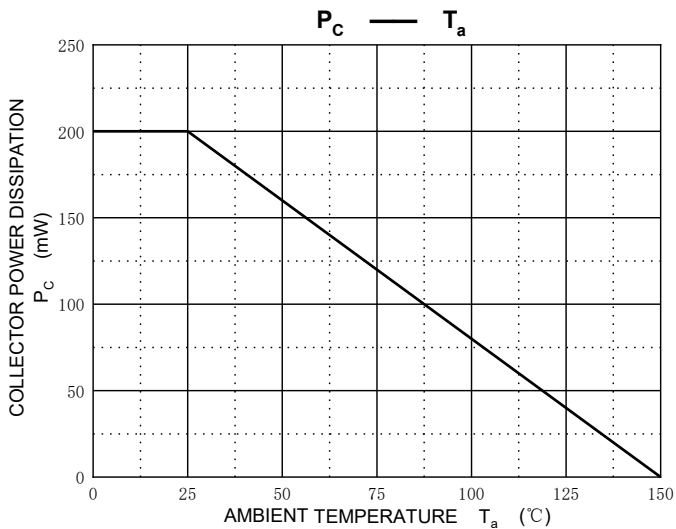
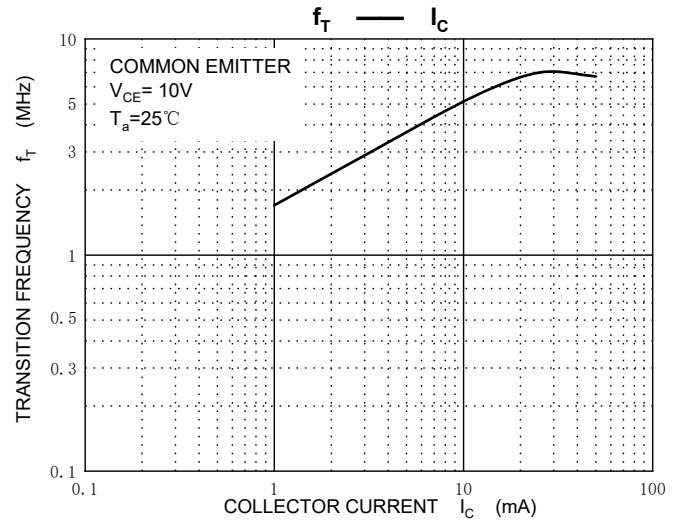
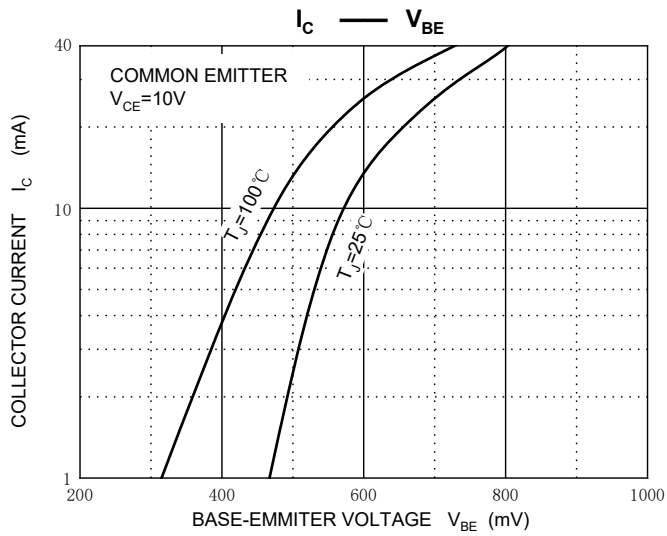
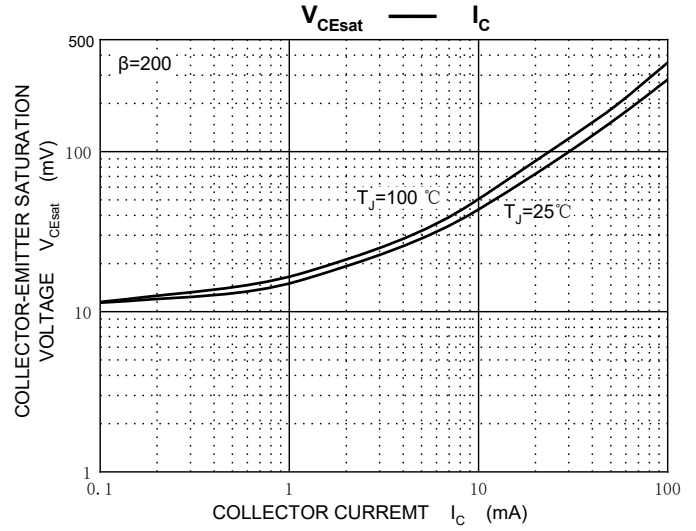
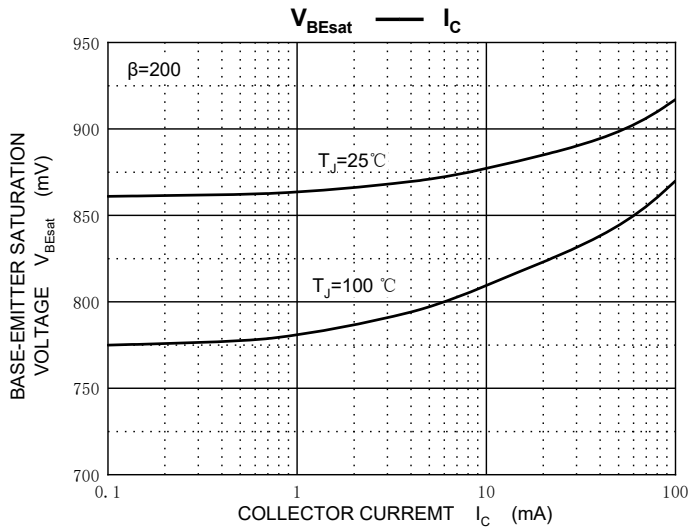


**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25 unless otherwise specified)**

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =100μA, I <sub>E</sub> =0	20			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =1mA, I <sub>B</sub> =0	12			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =100μA, I <sub>C</sub> =0	3			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0			1	uA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =1V, I <sub>C</sub> =0			1	uA
DC current gain	h <sub>FE(1)</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =20mA	50		250	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =50mA, I <sub>B</sub> =5mA			0.3	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =50mA, I <sub>B</sub> =5mA			1.15	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =20mA		7		GHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz		0.8	1	pF
Noise Figure	N <sub>F</sub>	V <sub>CB</sub> =10V, I <sub>C</sub> =7mA, f=1GHz		1.65	2	dB

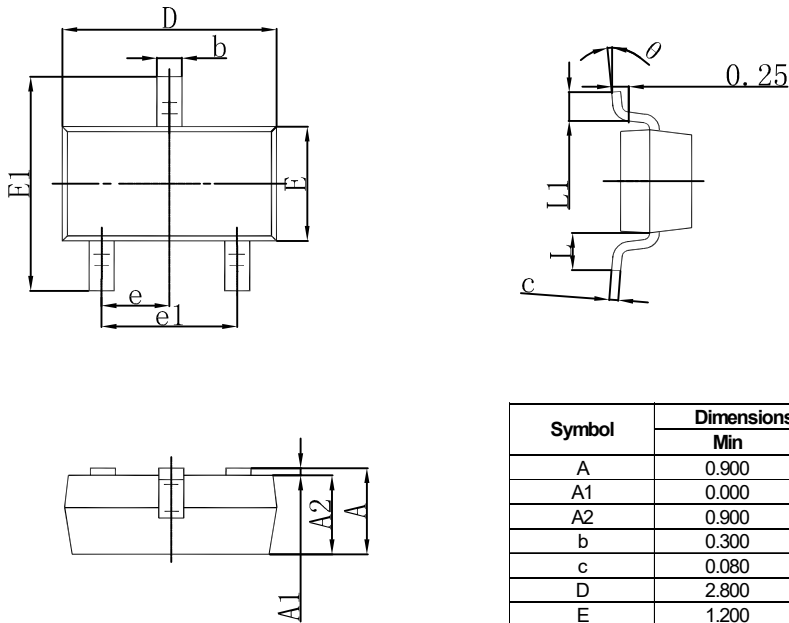
**Typical Characteristics**





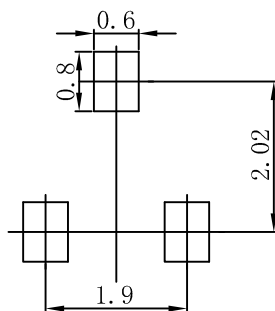


### SOT-23 Package Outline Dimensions



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:  $\pm 0.05\text{mm}$ .
  3. The pad layout is for reference purposes only.



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