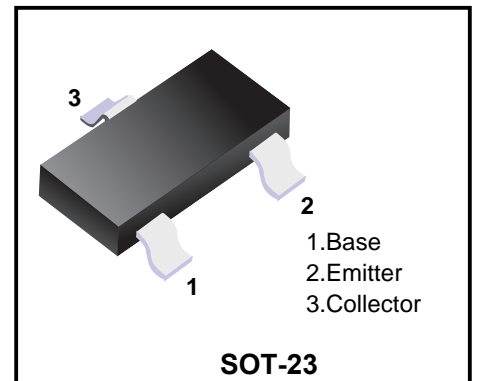


**Plastic-Encapsulate Transistors**

**TRANSISTOR (NPN)**

**FEATURES**

- ◆Excellent hFE Linearity
- ◆Complementary to A733



<b>Marking Code</b>	
2SC945	CR

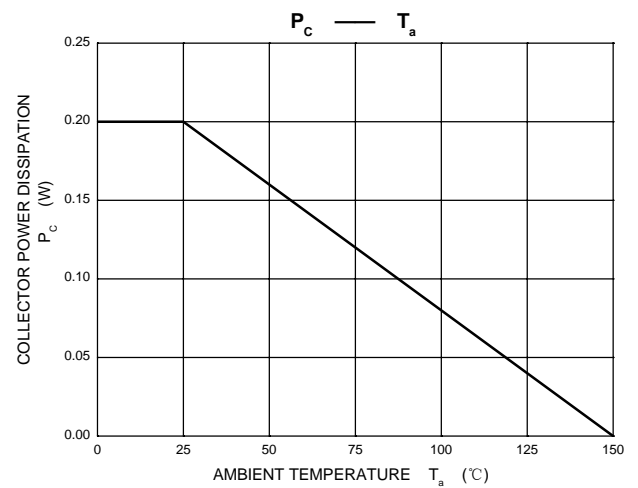
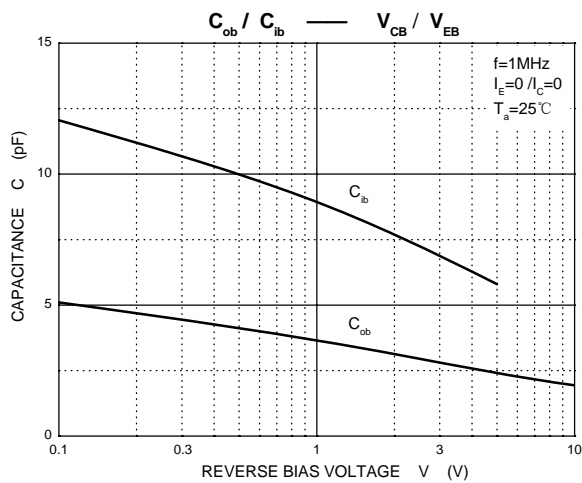
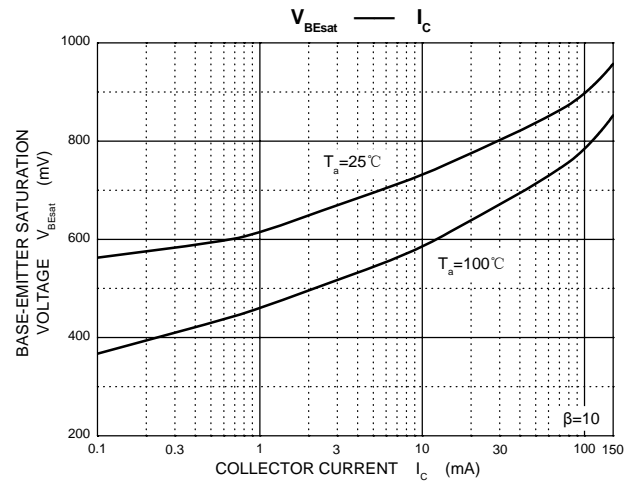
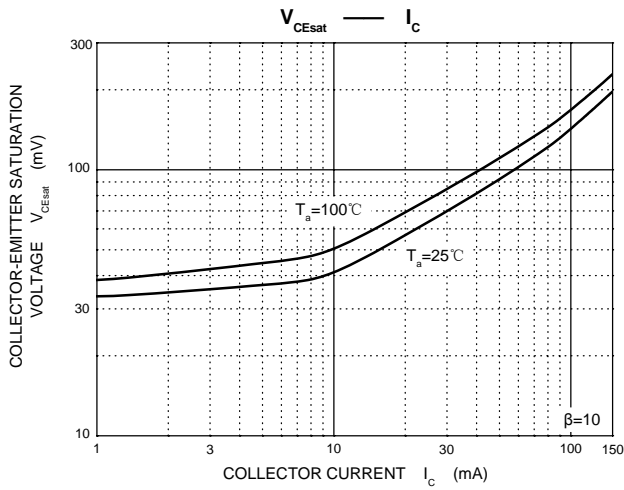
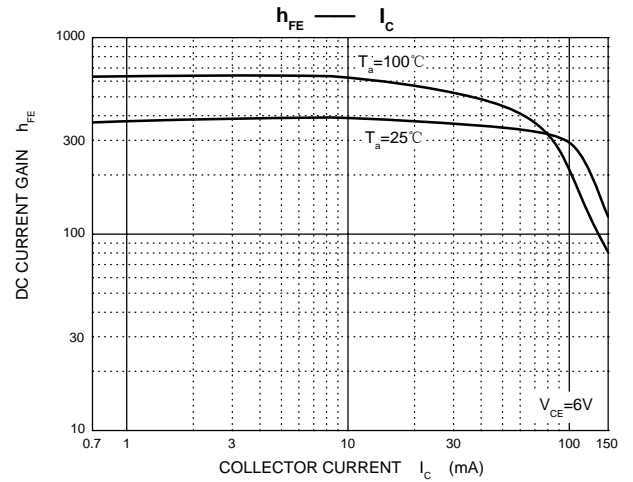
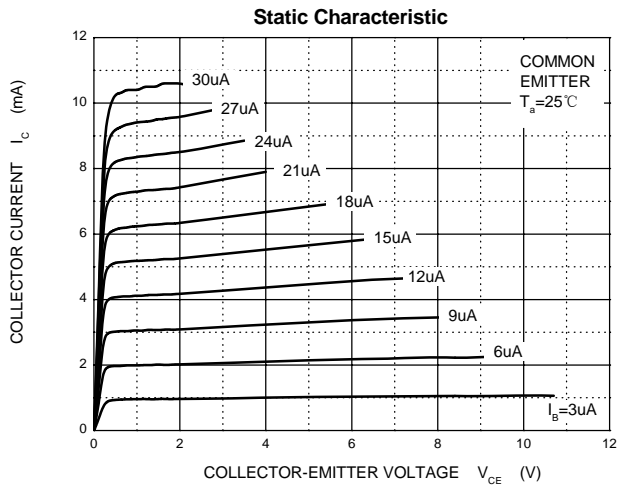
**MAXIMUM RATINGS(Ta=25°C unless otherwise noted)**

Symbol	Parameter	Value	Units
V <sub>CBO</sub>	Collector-Base Voltage	60	V
V <sub>CEO</sub>	Collector-Emitter Voltage	50	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current -Continuous	150	mA
P <sub>C</sub>	Collector Power Dissipation	200	mW
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55-150	°C

**ELECTRICAL CHARACTERISTICS(Tamb=25°C unless otherwise specified)**

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V(BR) <sub>CBO</sub>	I <sub>C</sub> =100uA, I <sub>E</sub> =0	60			V
Collector-emitter breakdown voltage	V(BR) <sub>CEO</sub>	I <sub>C</sub> =1mA, I <sub>B</sub> =0	50			V
Emitter-base breakdown voltage	V(BR) <sub>EBO</sub>	I <sub>E</sub> =0.1mA, I <sub>C</sub> =0	5			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =60V, I <sub>E</sub> =0			0.1	μA
Collector cut-off current	I <sub>CER</sub>	V <sub>CE</sub> =55V, R=10MΩ			0.1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0			0.1	μA
DC current gain	h <sub>FE(1)</sub>	V <sub>CE</sub> =6V, I <sub>C</sub> =1mA	200		400	
	h <sub>FE(2)</sub>	V <sub>CE</sub> =6V, I <sub>C</sub> =0.1mA	40			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =10mA			0.3	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =10mA			1	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =6V, I <sub>C</sub> =10mA, f =30 MHz	150			MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz			3.0	pF
Noise figure	NF	V <sub>CE</sub> =6V, I <sub>C</sub> =0.1mA R <sub>g</sub> =10kΩ, f=1kHz		4	10	dB

Typical Characteristics



**Ordering information**

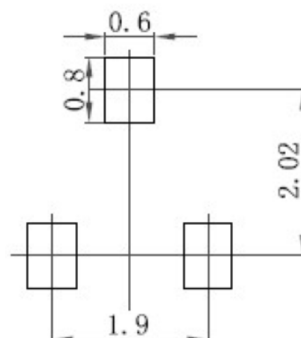
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel,7"reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

**Package Dimensions**

**SOT-23**

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.15	35	45
A1	0.1		3.9	
bp	0.38	0.48	15	19
C	0.09	0.15	3.54	5.9
D	2.8	3.0	110	118
E	1.2	1.4	47	55
E	1.9		75	
E1	0.95		37	
HE	2.1	2.55	83	100
Lp	0.15	0.45	5.9	18
Q	0.45	0.55	18	22
v	0.2		7.9	
W	0.1		4	

**The recommended mounting pad size**



## Disclaimer

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