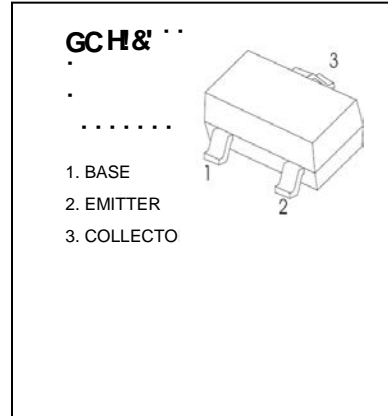




**SOT-23 Plastic-Encapsulate Transistors**

.....67, %± TRANSISTOR (NPN)



**: 95HI F9G**

- For general AF applications
- High collector current
- High current gain
- Low collector-emitter saturation voltage
- Complementary types: BC807 (PNP)

**MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)**

Symbol	Parameter	Value	Unit
V <sub>CBO</sub>	Collector-Base Voltage	50	V
V <sub>CEO</sub>	Collector-Emitter Voltage	45	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current	500	mA
P <sub>C</sub>	Collector Power Dissipation	300	mW
R <sub>θJA</sub>	Thermal Resistance From Junction To Ambient	417	°C/W
T <sub>J</sub> , T <sub>stg</sub>	Operation Junction and Storage Temperature Range	-55~+150	°C

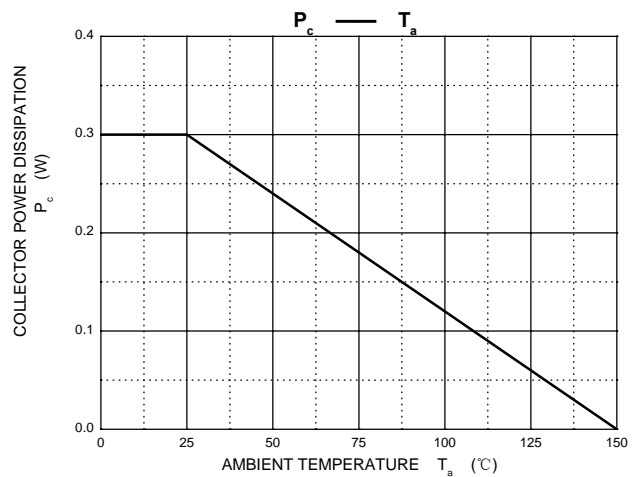
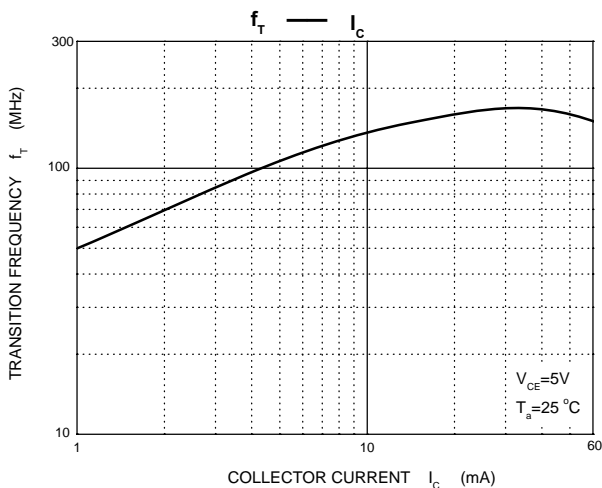
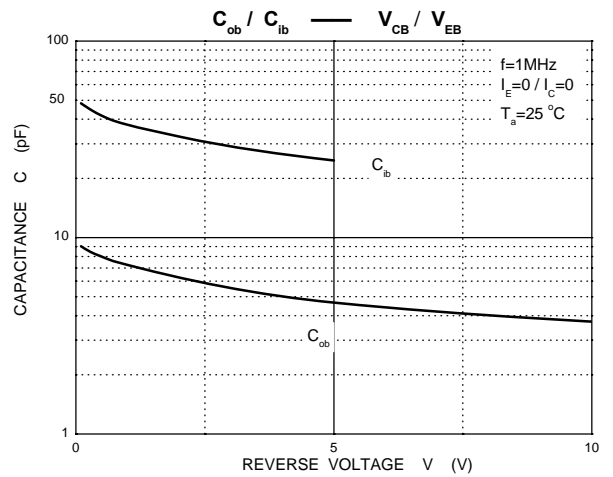
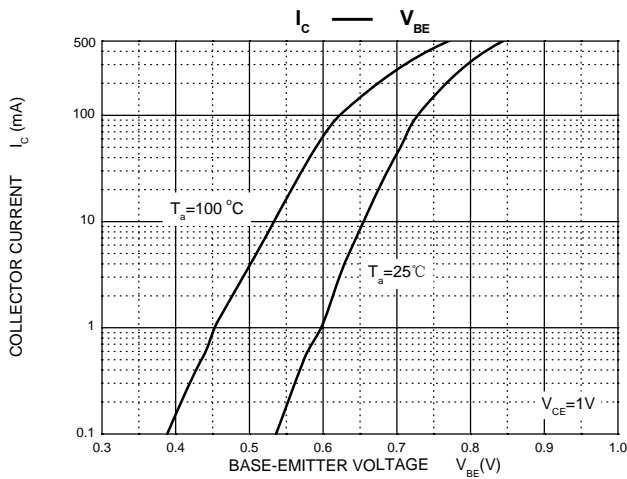
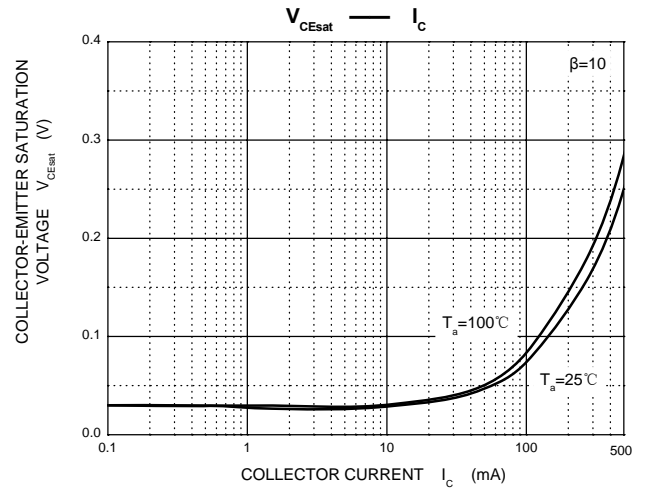
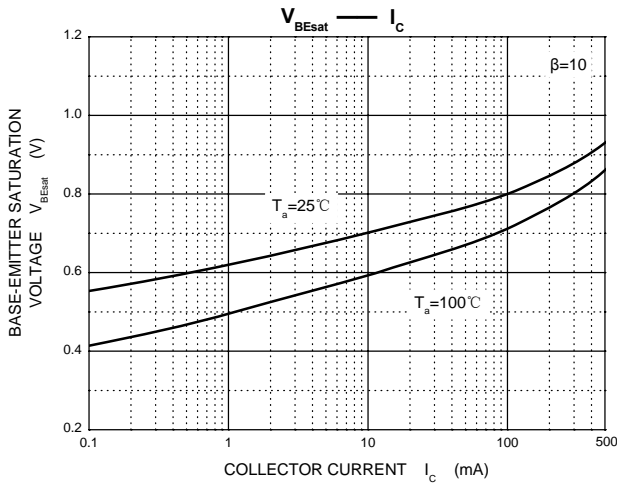
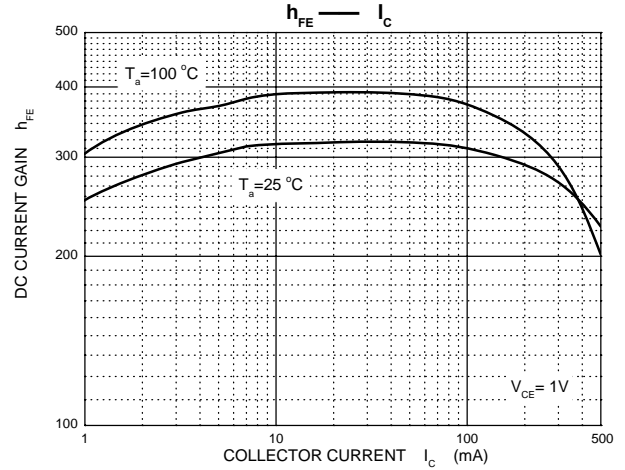
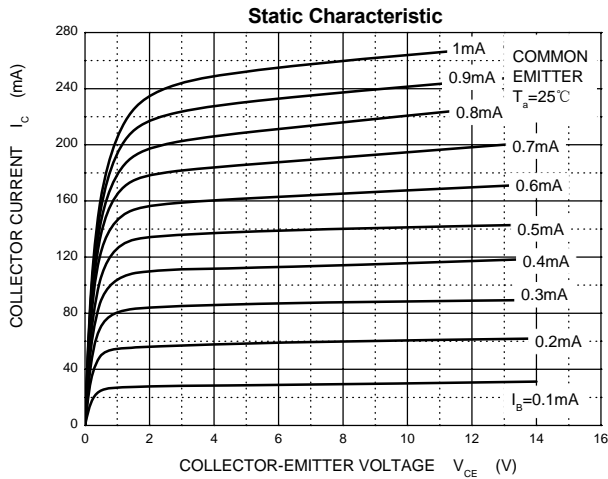
· 9 @ 7 HF ≈ 5 @ 7 < 5 F 5 7 H 9 F -GH7 G'fH<sub>1</sub> &) °C i b`Ygg'cH Yfk jgY gdYWZ YXL

..... DUfLa YHf'	· Gna Vc''	· · HYghi WcbX]hcbg'	· Ain	Typ'	Aax	Unit
7 c`YWfcf!VUgY VfyU_Xck b'j c`HJ Y'	V <sub>CBO</sub>	I <sub>C</sub> = 10μA, I <sub>E</sub> =0	50			V
7 c`YWfcf!Ya ]HfY VfyU_Xck b'j c`HJ Y'	V <sub>CEO</sub>	I <sub>C</sub> = 10mA, I <sub>B</sub> =0	45			V
9a ]HfY!VUgY VfyU_Xck b'j c`HJ Y'	V <sub>EBO</sub>	I <sub>E</sub> = 1μA, I <sub>C</sub> =0	5			V
7 c`YWfcf' W HcZWW ffYbh	I <sub>CBO</sub>	V <sub>CB</sub> = 45 V, I <sub>E</sub> =0			0.1	μA
9a ]HfY' W HcZWW ffYbh	I <sub>EBO</sub>	V <sub>EB</sub> = 4V, I <sub>C</sub> =0			0.1	μA
8 7' W ffYbh[ Ujb'.....	h <sub>FE(1)</sub>	V <sub>CE</sub> = 1V, I <sub>C</sub> = 100mA	100		600	
	h <sub>FE(2)</sub>	V <sub>CE</sub> = 1V, I <sub>C</sub> = 500mA	40			
7 c`YWfcf!Ya ]HfY' gUhi fU]cb'j c`HJ Y'	V <sub>CE(sat)</sub>	I <sub>C</sub> = 500mA, I <sub>B</sub> = 50mA			0.7	V
6 UgY!Ya ]HfY' gUhi fU]cb'j c`HJ Y'	V <sub>BE(sat)</sub>	I <sub>C</sub> = 500mA, I <sub>B</sub> = 50mA			1.2	V
6 UgY!Ya ]HfY' j c`HJ Y'	V <sub>BE</sub>	V <sub>CE</sub> = 1 V, I <sub>C</sub> = 500mA			1.2	V
7 c`YWyf' WUdUW]UbW'	C <sub>ob</sub>	V <sub>CB</sub> =10V, f=1MHz		10		pF
HfUbg]hcb'Z'Yei YbWni	f <sub>T</sub>	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 10mA f=100MHz	100			MHz

7 @ GG= ≈ 5 HCB'C: · h<sub>FE</sub>'rL'

FUb_	67, %±!%'	67, %±!&)'	67, %±!( '\$'
FUb[ Y'	%%\$!&)' \$'	% \$( '\$\$'	&) \$!* \$\$\$'
AUf_]b[ '	*5'	*6'	*7'

# 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:**

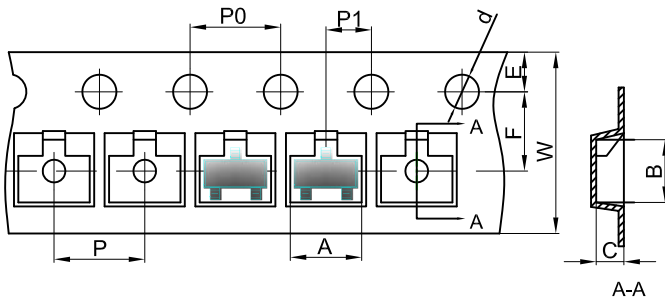
1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.

**NOTICE**

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

# SOT-23 Tape and Reel

## SOT-23 Embossed Carrier Tape



### Packaging Description:

SOT-23 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter

Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

## SOT-23 Tape Leader and Trailer



## SOT-23 Reel



Dimensions are in millimeter

Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	