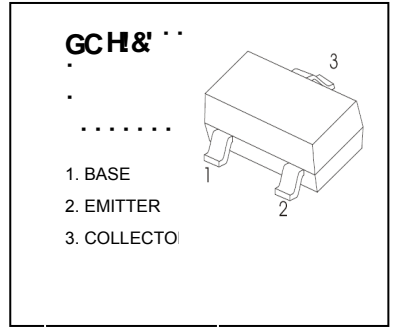


TK67, NPN

95HF9G

- For general AF applications
- High collector current
- High current gain
- Low collector-emitter saturation voltage
- Complementary types: TKBC807 (PNP)



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

Symbol	Parameter	Value	Unit
V <sub>CB0</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>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	55~+150	°C

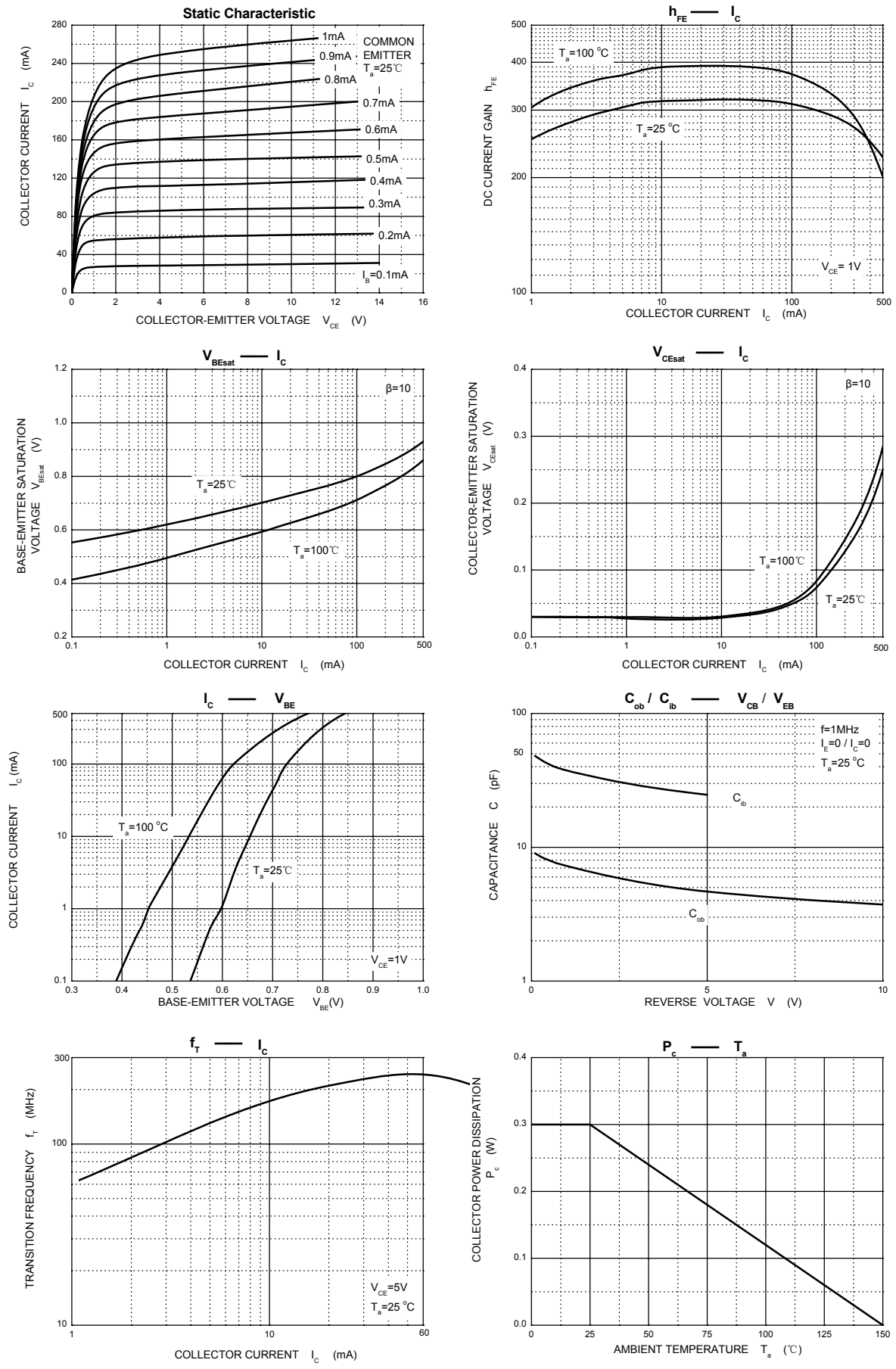
9 @ 7 HF 5 @ 7 < 5 F 5 7 H 9 F -GH 7 G' f H 1 & ) °C i b`Ygg' c H Yfk jgY gdYW ZYXL

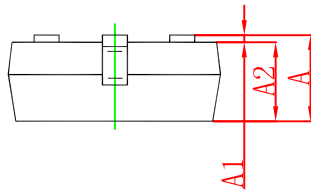
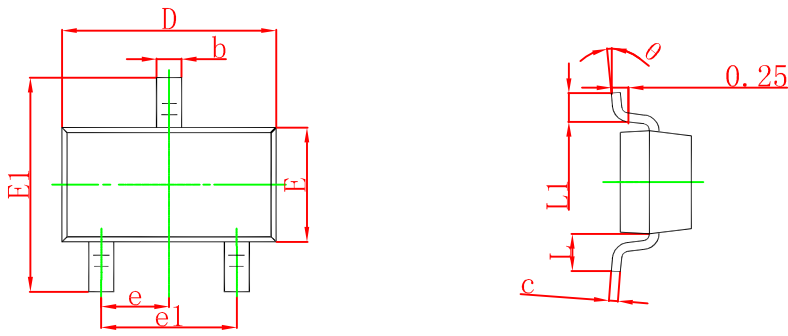
Parameter	Symbol	Value	Unit
V <sub>CB0</sub>	V <sub>CB0</sub>	I <sub>C</sub> = 10μA, I <sub>E</sub> = 0	50 V
V <sub>CEO</sub>	V <sub>CEO</sub>	I <sub>C</sub> = 10mA, I <sub>B</sub> = 0	45 V
V <sub>EBO</sub>	V <sub>EBO</sub>	I <sub>E</sub> = 1μA, I <sub>C</sub> = 0	5 V
I <sub>CB0</sub>	I <sub>CB0</sub>	V <sub>CB</sub> = 45 V, I <sub>E</sub> = 0	0.1 μA
I <sub>EBO</sub>	I <sub>EBO</sub>	V <sub>EB</sub> = 4V, I <sub>C</sub> = 0	0.1 μA
h <sub>FE(1)</sub>	h <sub>FE(1)</sub>	V <sub>CE</sub> = 1V, I <sub>C</sub> = 100mA	100
h <sub>FE(2)</sub>	h <sub>FE(2)</sub>	V <sub>CE</sub> = 1V, I <sub>C</sub> = 500mA	40
V <sub>CE(sat)</sub>	V <sub>CE(sat)</sub>	I <sub>C</sub> = 500mA, I <sub>B</sub> = 50mA	0.7 V
V <sub>BE(sat)</sub>	V <sub>BE(sat)</sub>	I <sub>C</sub> = 500mA, I <sub>B</sub> = 50mA	1.2 V
V <sub>BE</sub>	V <sub>BE</sub>	V <sub>CE</sub> = 1 V, I <sub>C</sub> = 500mA	1.2 V
C <sub>ob</sub>	C <sub>ob</sub>	V <sub>CB</sub> = 10V, f = 1MHz	10 pF
f <sub>T</sub>	f <sub>T</sub>	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 10mA f = 100MHz	100 MHz

7 @ 5 GG 5 7 5 HCB C: h<sub>FE</sub>

Symbol	TK67, NPN	TK67, NPN	TK67, NPN
V <sub>CE(sat)</sub>	0.7 V	0.7 V	0.7 V
V <sub>BE(sat)</sub>	1.2 V	1.2 V	1.2 V
f <sub>T</sub>	100 MHz	100 MHz	100 MHz

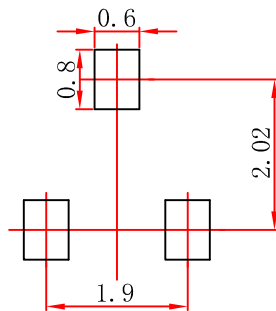
## Typical Characteristics





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