

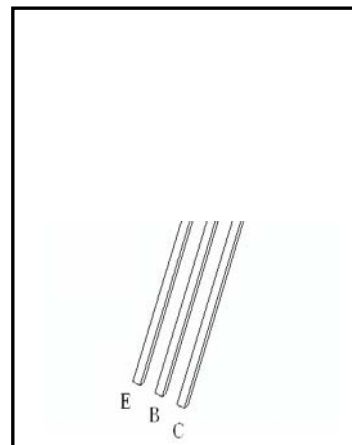


FEATURES

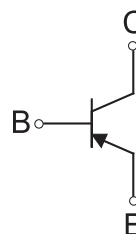
- High breakdown voltage.
- Wide SOA(Safe operating area).
- COMPLEMENTARY: MPSA44

MAXIMUM RATINGS (TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	BV_{CBO}	-400	V
Collector-Emitter Voltage	BV_{CEO}	-400	V
Emitter-Base Voltage	BV_{EBO}	-6	V
Collector Current -Continuous	I_C	-300	mA
Collector Power dissipation	P_{CM}	625	mW
Storage Temperature	T_{stg}	-55~+150	°C



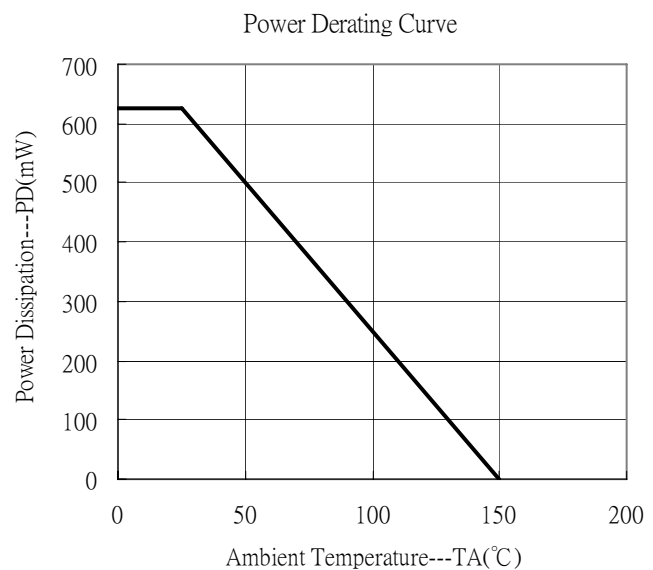
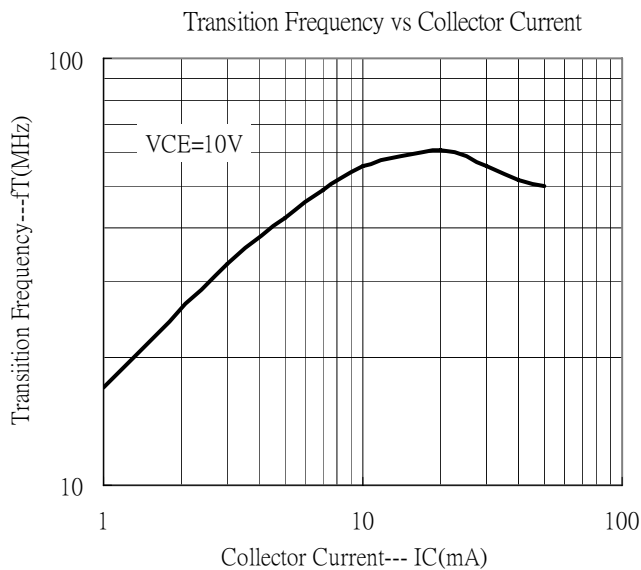
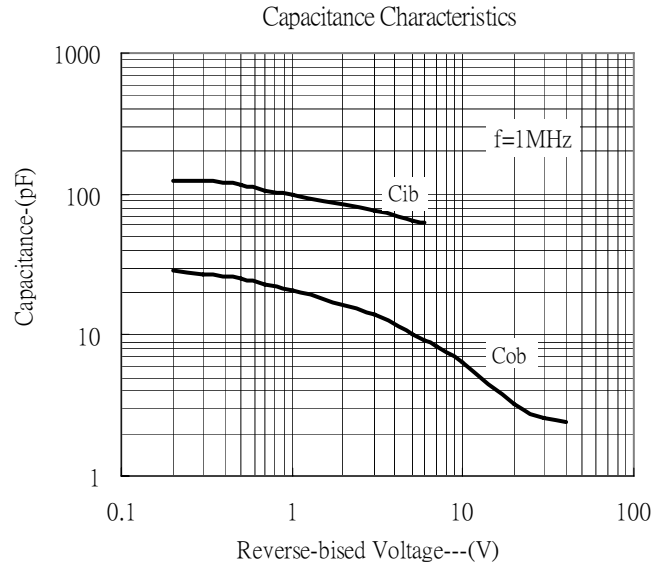
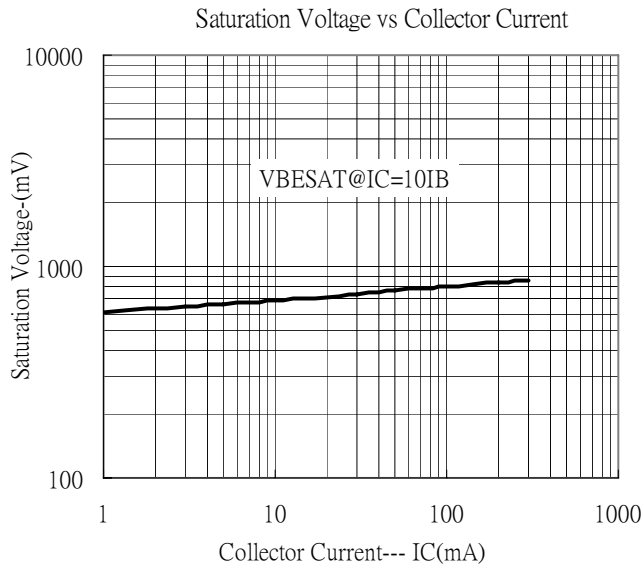
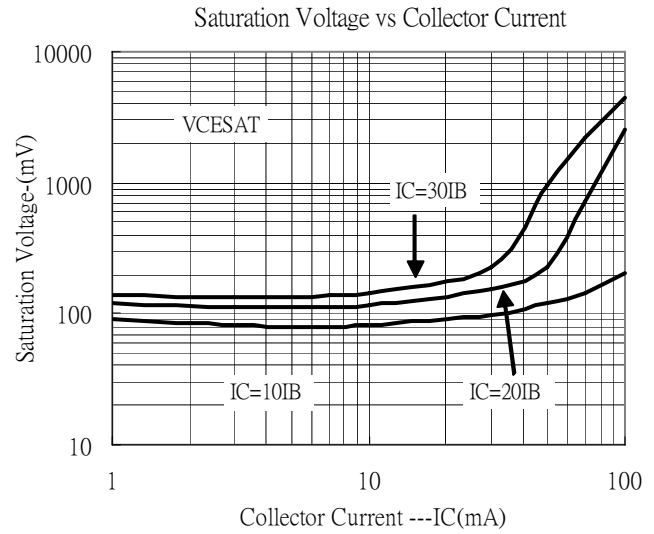
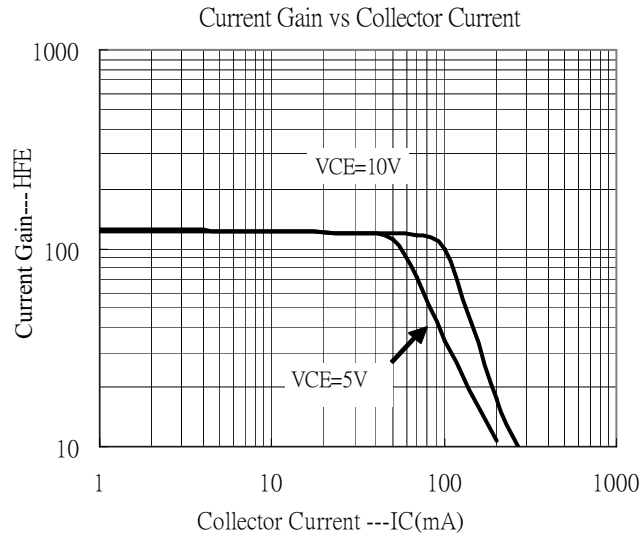
Equivalent Circuit



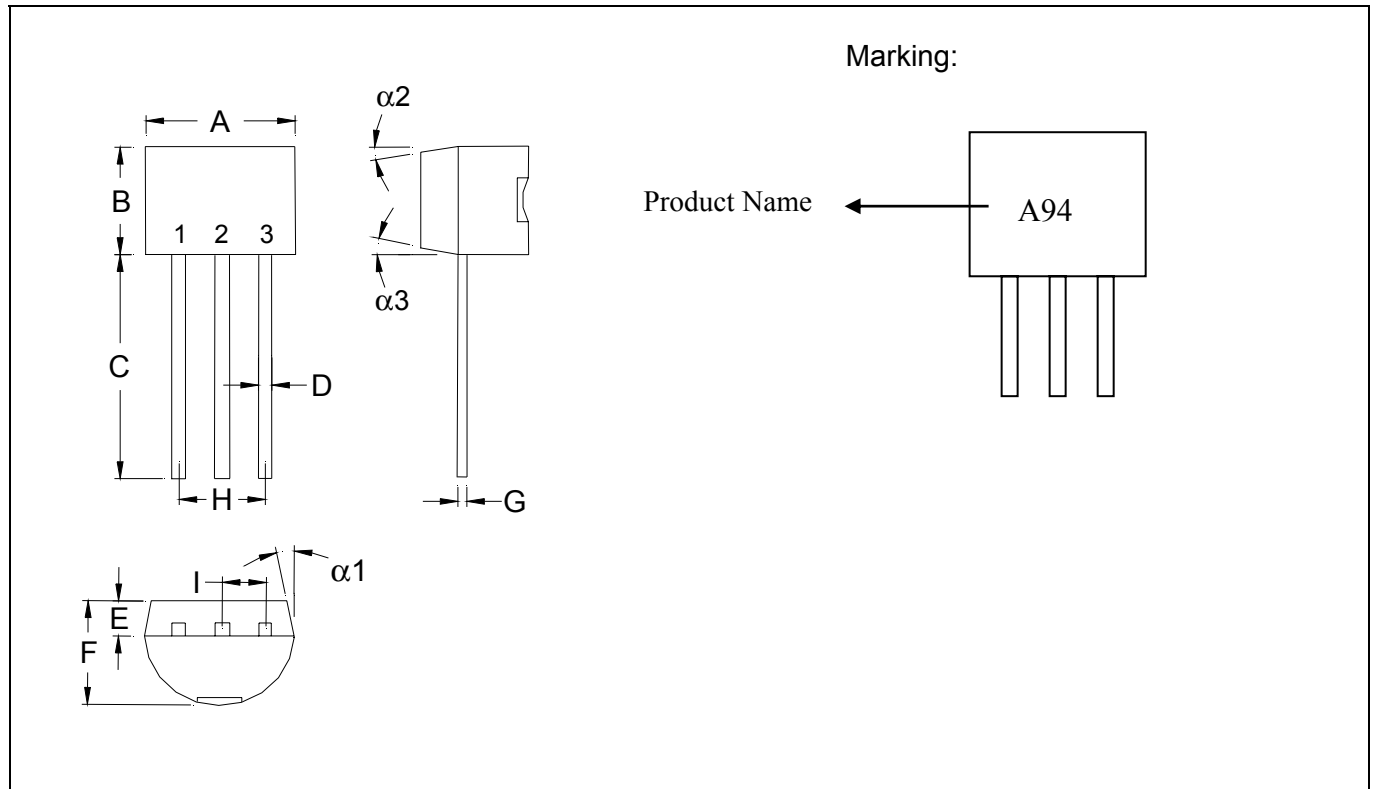
ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
Collector-Base breakdown Voltage	BV_{CBO}	$I_C = -100\mu A, I_E = 0$	-400		V
Collector-Emitter breakdown Voltage	BV_{CEO}	$I_C = -1mA, I_B = 0$	-400		V
Emitter-Base breakdown Voltage	BV_{EBO}	$I_E = -100\mu A, I_C = 0$	-6		V
Collector cut-off current	I_{CBO}	$V_{CB} = -300V, I_E = 0$		-100	nA
Collector Cut-off Current	I_{CES}	$V_{CE} = -400V, V_{BE} = 0V$		-1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4V, I_C = 0$		-100	nA
DC current gain	$h_{FE(1)}$	$V_{CE} = -10V, I_B = -1mA$	40		
	$h_{FE(2)}$	$V_{CE} = -10V, I_B = -10mA$	50	300	
	$h_{FE(3)}$	$V_{CE} = -10V, I_B = -50mA$	45		
	$h_{FE(4)}$	$V_{CE} = -10V, I_B = -100mA$	40		
Collector-emitter saturation voltage	$V_{CE(SAT)1}$	$I_C = -10mA, I_B = -1mA$		-0.5	V
	$V_{CE(SAT)2}$	$I_C = -50mA, I_B = -5mA$		-0.75	
Base-emitter saturation voltage	$V_{BE(SAT)}$	$I_C = -10mA, I_B = -1mA$		-0.75	V

Typical Characteristics



TO-92 Dimension



*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1704	0.1902	4.33	4.83	G	0.0142	0.0220	0.36	0.56
B	0.1704	0.1902	4.33	4.83	H	-	*0.1000	-	*2.54
C	0.5000	-	12.70	-	I	-	*0.0500	-	*1.27
D	0.0142	0.0220	0.36	0.56	$\alpha 1$	-	*5°	-	*5°
E	-	*0.0500	-	*1.27	$\alpha 2$	-	*2°	-	*2°
F	0.1323	0.1480	3.36	3.76	$\alpha 3$	-	*2°	-	*2°

Notes: 1.Controlling dimension: millimeters.

2.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.

Material:

- Lead: Pure tin plated.
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0.

Ordering Information

Device	Package	Shipping
MPSA94, T/B	TO-92 (Pb-free lead plating and halogen-free)	2000 pcs / Tape & Box
MPSA94, bulk	TO-92 (Pb-free lead plating and halogen-free)	1000 pcs/ bag, 10 bags/box, 10boxes/carton