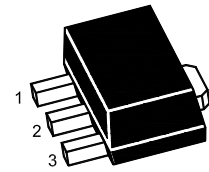# MPSA94U

PNP Silicon Epitaxial Planar Transistor

for high voltage switching and amplifier applications

1.Base 2.Collector 3.Emitter

SOT-89 Plastic Package

Absolute Maximum Ratings (T_a = 25 $^\circ$C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	-V_{CBO}	400	V
Collector Emitter Voltage	-V_{CEO}	400	V
Emitter Base Voltage	-V_{EBO}	6	V
Collector Current	-I_C	300	mA
Total Power Dissipation	P_{tot}	625	mW
Junction Temperature	T_J	150	$^\circ$C
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ$C

Characteristics at T_a = 25 $^\circ$C

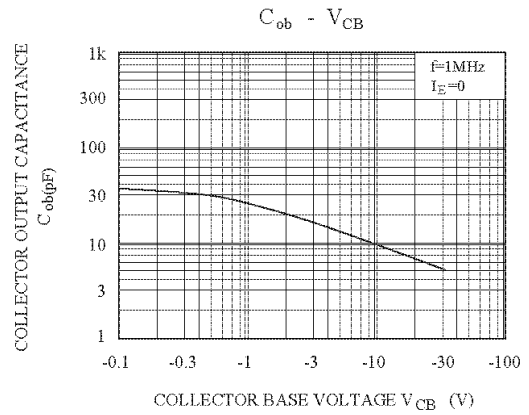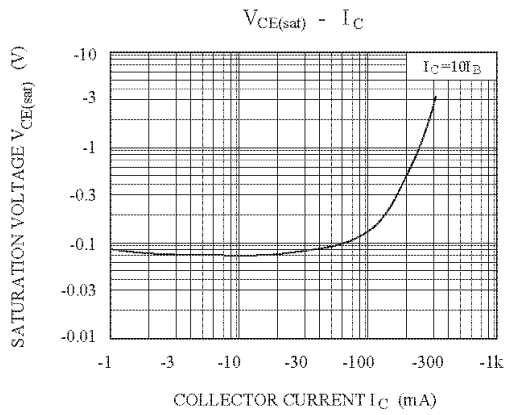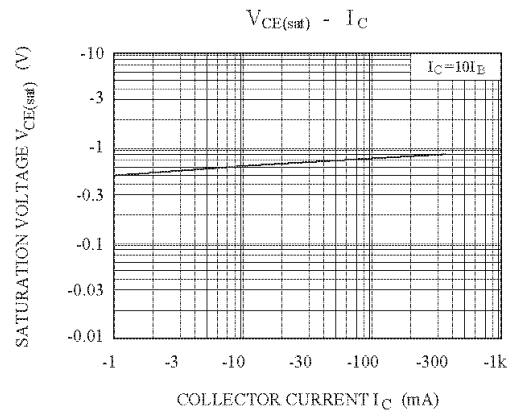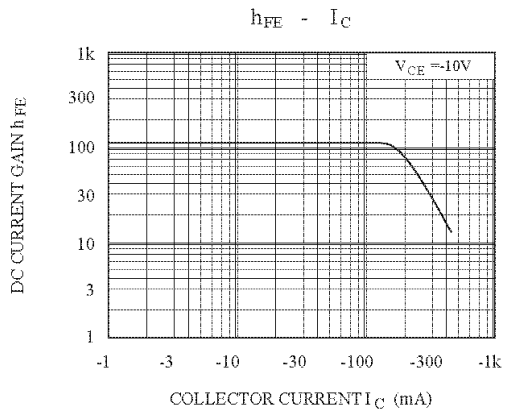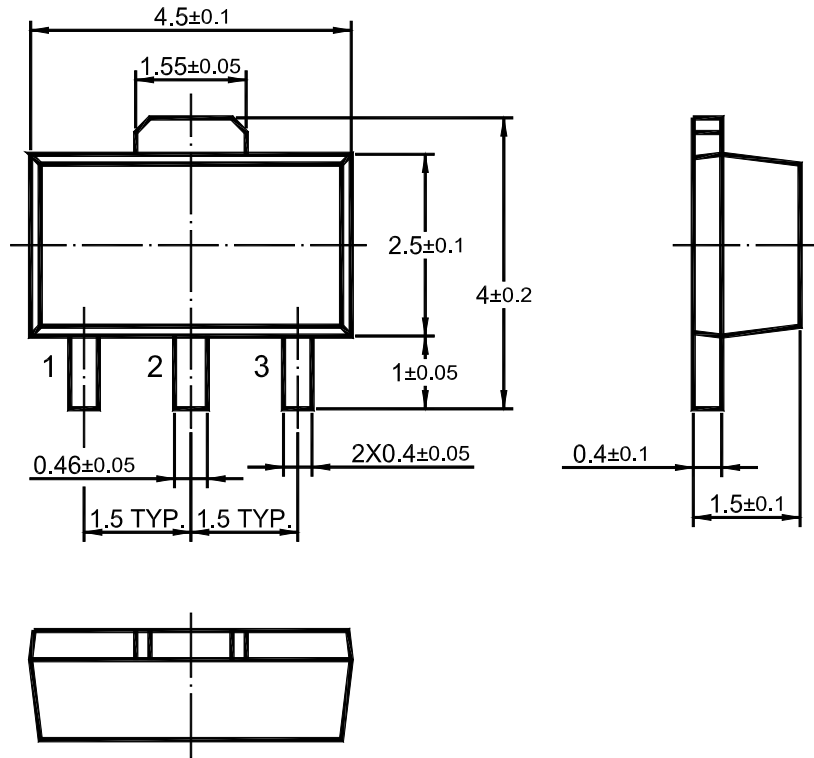| Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at -V_{CE} = 10 V, -I_C = 1 mA at -V_{CE} = 10 V, -I_C = 10 mA at -V_{CE} = 10 V, -I_C = 50 mA at -V_{CE} = 10 V, -I_C = 100 mA	h_{FE} h_{FE} h_{FE} h_{FE}	70 80 70 60	- 300 - -	- - - -
Collector Base Cutoff Current at -V_{CB} = 300 V	-I_{CBO}	-	0.1	µA
Collector Emitter Cutoff Current at -V_{CE} = 400 V	-I_{CES}	-	1	µA
Emitter Base Cutoff Current at -V_{EB} = 4 V	-I_{EBO}	-	0.1	µA
Collector Base Breakdown Voltage at -I_C = 100 µA	-$V_{(BR)CBO}$	400	-	V
Collector Emitter Breakdown Voltage at -I_C = 1 mA	-$V_{(BR)CEO}$	400	-	V
Emitter Base Breakdown Voltage at -I_E = 10 µA	-$V_{(BR)EBO}$	6	-	V
Collector Emitter Saturation Voltage at -I_C = 10 mA, -I_B = 1 mA at -I_C = 50 mA, -I_B = 5 mA	-$V_{CE(sat)}$	- -	0.2 0.5	V
Base Emitter Saturation Voltage at -I_C = 10 mA, -I_B = 1 mA	-$V_{BE(sat)}$	-	0.75	V
Collector Output Capacitance at -V_{CB} = 20 V, f = 1 MHz	C_{ob}	-	7	pF
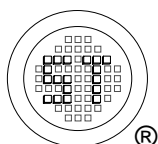
MPSA94U

SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company
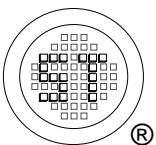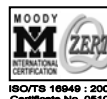listed on the Hong Kong Stock Exchange, Stock Code: 724)

Dated : 12/11/2008

MPSA94U

SOT-89 PACKAGE OUTLINE

4.5±0.1

1.55±0.05

2.5±0.1

4±0.2

1±0.05

1

2

3

0.46±0.05

2X0.4±0.05

1.5 TYP.

1.5 TYP.

0.4±0.1

1.5±0.1

Dimensions in mm

ISO/TS 16949 : 2002
Certificate No. 05103

ISO 14001:2004
Certificate No. 7116

ISO 9001:2000
Certificate No. 0506098

BSI-OHSAS 18001: 1999
Certificate No. 7116

IECQ QC 080000
Certificate No.PRC-HSPM-H051