



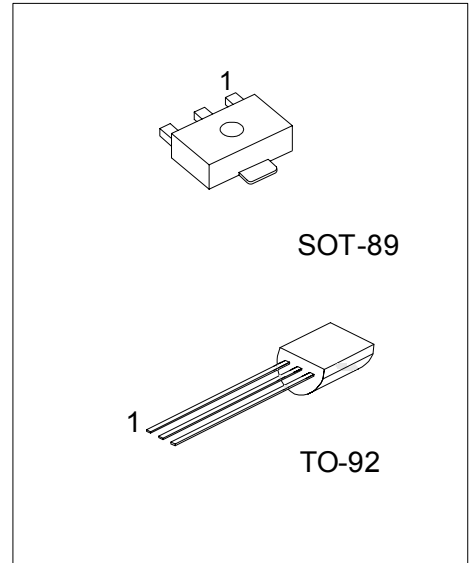
MPSA94

PNP EPITAXIAL SILICON TRANSISTOR

HIGH VOLTAGE TRANSISTOR

■ FEATURES

- * Collector-Emitter voltage:
 $V_{CE0} = -400V$
- * Collector Dissipation:
 $P_{D(MAX)} = 625mW$
- * Low collector-Emitter saturation voltage



*Pb-free plating product number: MPSA94L

■ ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
MPSA94-AB3-F-R	MPSA94-AB3-F-R	SOT-89	B	C	E	Tape Reel
MPSA94-T92-C-B	MPSA94-T92-C-B	TO-92	E	B	C	Tape Box
MPSA94-T92-C-K	MPSA94-T92-C-K	TO-92	E	B	C	Bulk

MPSA94L-AB3-F-R		(1)Packing Type (2)Pin Assignment (3)Package Type (4)Lead Plating	(1) B: Tape Box, K: Bulk, R: Tape Reel (2) refer to Pin Assignment (3) T92: TO-92, AB3: SOT-89 (4) L: Lead Free Plating, Blank: Pb/Sn
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■ ABSOLUTE MAXIMUM RATING (Operating temperature range applies unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	-400	V
Collector-Emitter Voltage	V_{CEO}	-400	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector Power Dissipation($T_a=25^{\circ}\text{C}$)	TO-92	625	mW
	SOT-89	0.5	W
Collector Current	I_C	-300	mA
Junction Temperature	T_J	+150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-40 ~ +150	$^{\circ}\text{C}$

Note Absolute maximum ratings are those values beyond which the device could be permanently damaged.

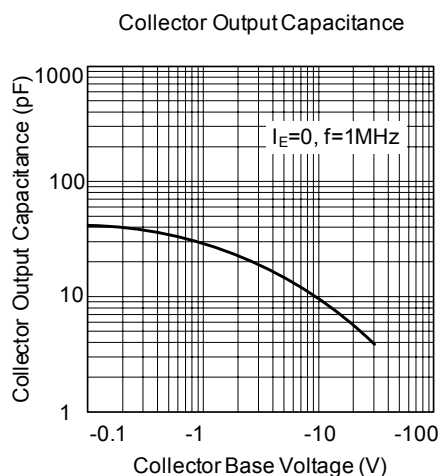
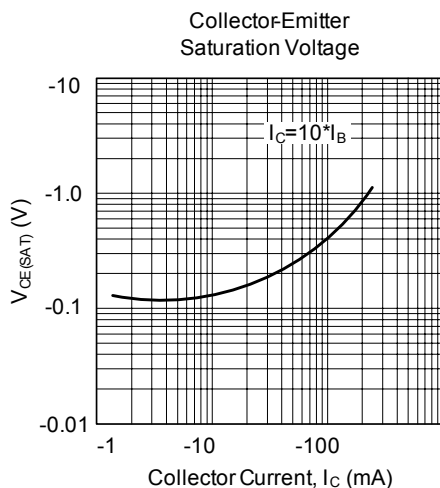
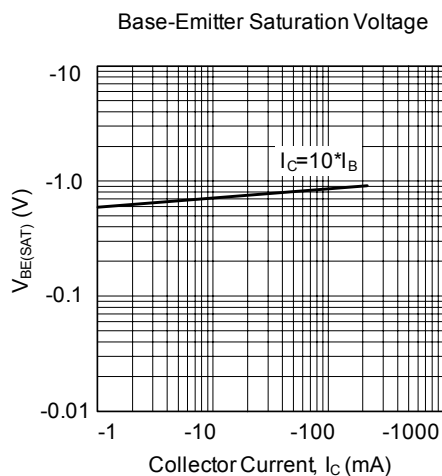
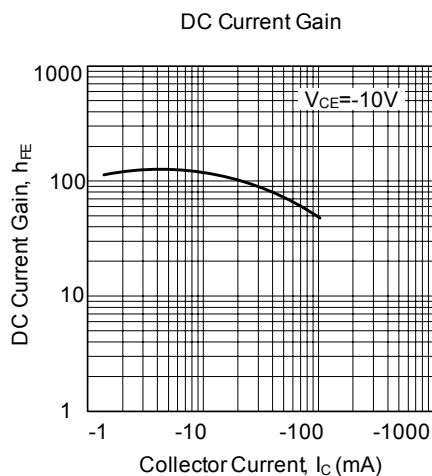
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS ($T_J=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=-100\mu\text{A}$, $I_E=0$	-400			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=-1\text{mA}$, $I_B=0$	-400			V
Collector-Emitter Breakdown Voltage	BV_{CES}	$I_C=-100\mu\text{A}$, $V_{BE}=0$	-400			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=-100\mu\text{A}$, $I_C=0$	-5			V
Collector Cut-off Current	I_{CBO}	$V_{CB}=-300\text{V}$, $I_E=0$			-100	nA
Collector Cut-off Current	I_{CES}	$V_{CB}=-400\text{V}$, $V_{BE}=0$			-1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=-4\text{V}$, $I_C=0$			100	nA
DC Current Gain(note)	h_{FE}	$V_{CE}=-10\text{V}$, $I_C=-1\text{mA}$	60			
		$V_{CE}=-10\text{V}$, $I_C=-10\text{mA}$	70		300	
		$V_{CE}=-10\text{V}$, $I_C=-50\text{mA}$	70			
		$V_{CE}=-10\text{V}$, $I_C=-100\text{mA}$	40			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=-10\text{mA}$, $I_B=-1\text{mA}$			-0.20	V
		$I_C=-50\text{mA}$, $I_B=-5\text{mA}$			-0.5	
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C=-10\text{mA}$, $I_B=-1\text{mA}$			-0.75	V
Output Capacitance	C_{ob}	$V_{CB}=-20\text{V}$, $I_E=0$, $f=1\text{MHz}$			7	pF

Note: Pulse test: $PW < 300\mu\text{s}$, Duty Cycle $< 2\%$

■ TYPICAL CHARACTERISTICS



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