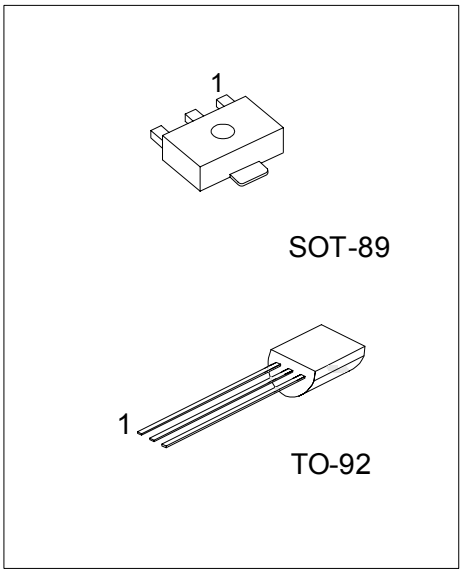
MPSA94

PNP EPITAXIAL SILICON TRANSISTOR

HIGH VOLTAGE TRANSISTOR



*Pb-free plating product number: MPSA94L

■ FEATURES

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

■ 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

■ 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(Ta=25℃)	TO-92	P_D	625	mW
	SOT-89		0.5	W
Collector Current		I_C	-300	mA
Junction Temperature		T_J	+150	℃
Storage Temperature		T_{STG}	-40 ~ +150	℃

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.

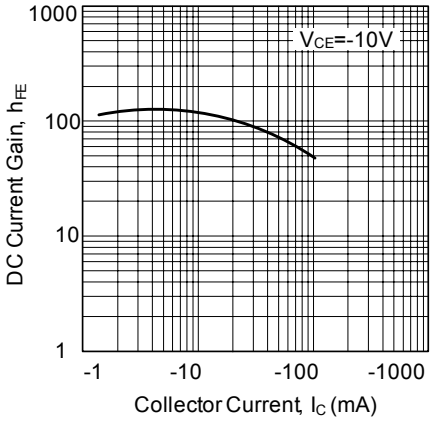
■ ELECTRICAL CHARACTERISTICS (T_J=25℃, unless otherwise specified)

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

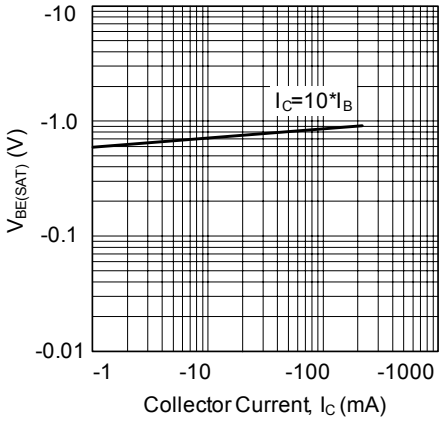
Note: Pulse test: PW<300μs, Duty Cycle<2%

■ TYPICAL CHARACTERISTICS

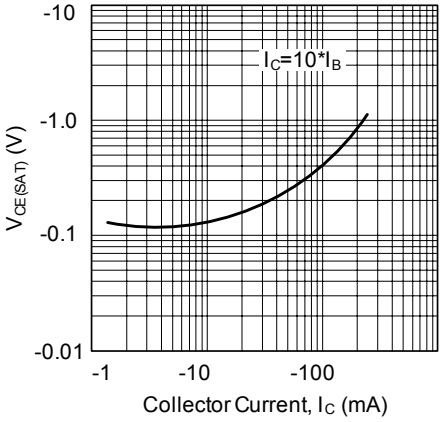
DC Current Gain



Base-Emitter Saturation Voltage



Collector-Emitter Saturation Voltage



Collector Output Capacitance