



MPSA194

PNP SILICON TRANSISTOR

PNP EPITAXIAL SILICON TRANSISTOR

DESCRIPTION

The UTC **MPSA194** is designed for high voltage low power switching applications especially for use in telephone and telecommunication circuits.

FEATURES

* Collector-Emitter Voltage: $V_{CEO}=400V$

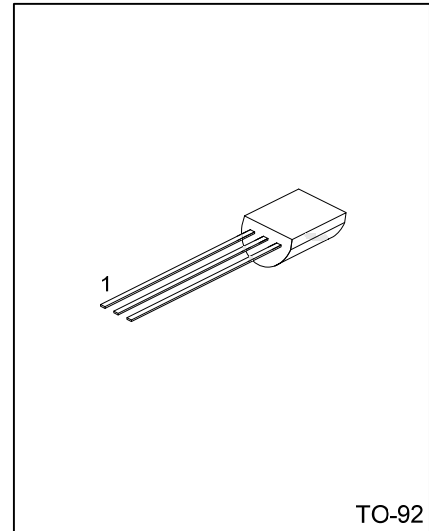
* Power Dissipation: 1.0W

APPLICATIONS

* Telephone Circuit

* Telecommunication Circuit

ORDERING INFORMATION



Lead-free: MPSA194L

Halogen-free: MPSA194G

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free Plating	Halogen Free		1	2	3	
MPSA194-T92-B	MPSA194L-T92-B	MPSA194G-T92-B	TO-92	E	B	C	Tape Box
MPSA194-T92-K	MPSA194L-T92-K	MPSA194G-T92-K	TO-92	E	B	C	Bulk

<p>MPSA194L-T92-B</p> <p>(1)Packing Type</p> <p>(2)Package Type</p> <p>(3)Lead Plating</p>	<p>(1) B: Tape Box, K: Bulk,</p> <p>(2) T92: TO-92</p> <p>(3) G: Halogen Free, L: Lead Free, Blank: Pb/Sn</p>
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■ ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	RATINGS	UNIT
Collector to Base Voltage	V_{CBO}	-400	V
Collector to Emitter Voltage	V_{CEO}	-400	V
Emitter to Base Voltage	V_{EBO}	-6	V
Collector Current	I_C	-800	mA
Collector Dissipation ($T_a=25^\circ\text{C}$)	P_C	1.0	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^\circ\text{C}$

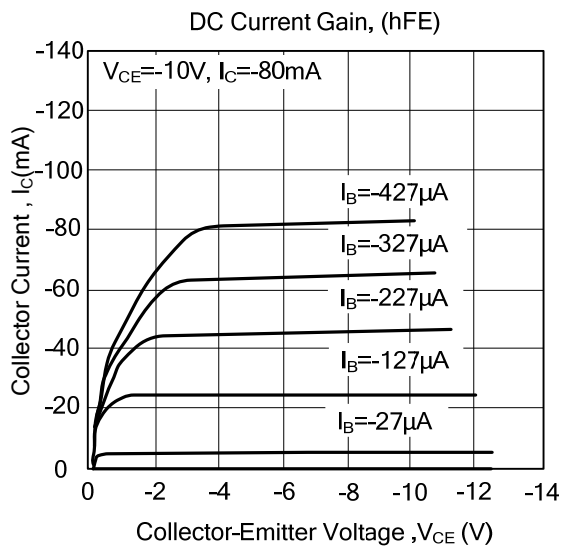
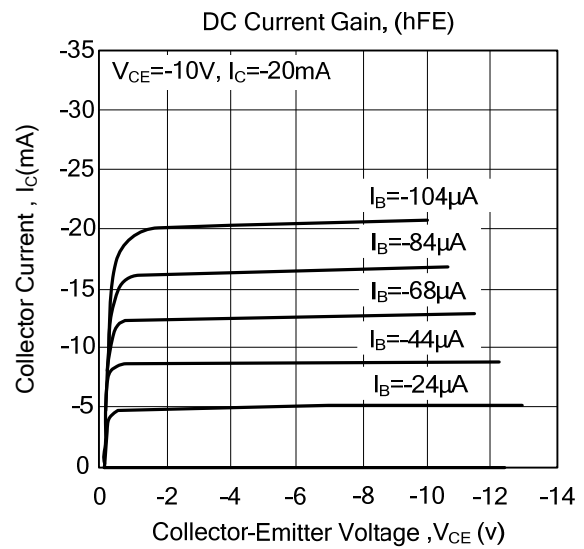
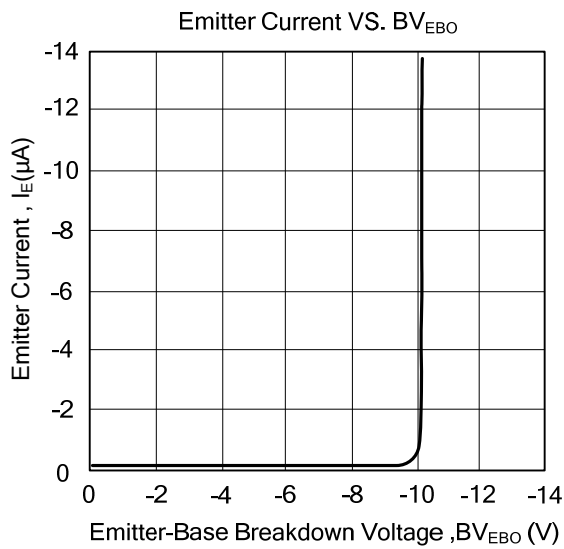
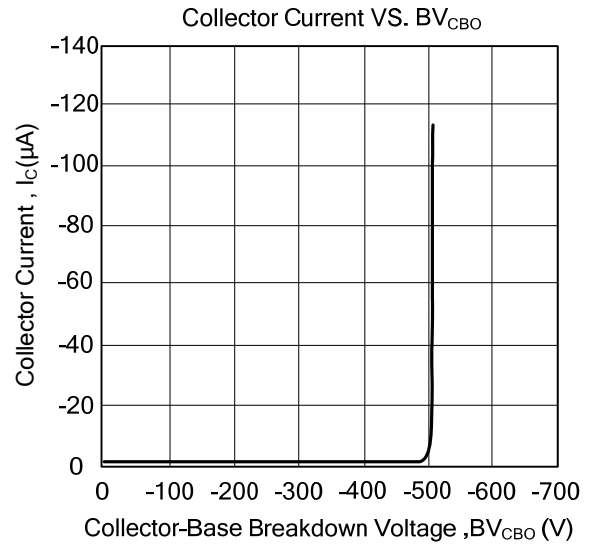
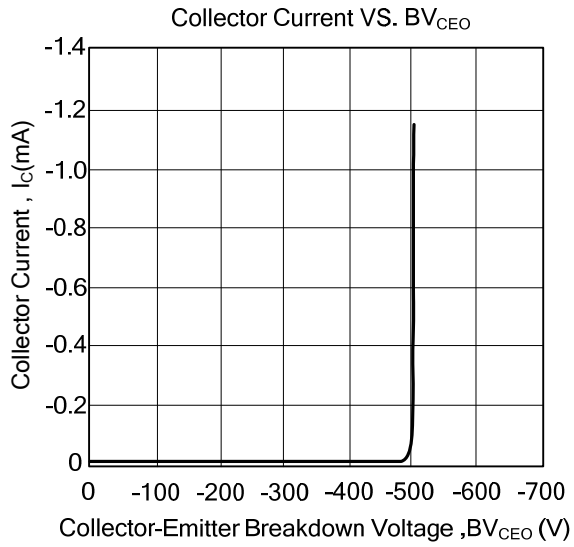
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

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}	$I_C=-100\mu\text{A}$, $I_E=0\text{A}$	-400			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=-1\text{mA}$, $I_B=0\text{A}$	-400			V
Collect Cut-off Current	I_{CBO}	$V_{CB}=-400\text{V}$, $I_E=0\text{A}$			-10	μA
Collect Cut-off Current	I_{CEO}	$V_{CB}=-200\text{V}$, $V_{BE}=0\text{V}$			-1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=-6\text{V}$, $I_C=0\text{A}$			-0.2	μA
DC Current Gain	h_{FE}	$V_{CE}=-10\text{V}$, $I_C=-1\text{mA}$	50			
		$V_{CE}=-10\text{V}$, $I_C=-20\text{mA}$	50		800	
		$V_{CE}=-10\text{V}$, $I_C=-80\text{mA}$	40			
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C=-20\text{mA}$, $I_B=-2\text{mA}$			-0.9	V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=-20\text{mA}$, $I_B=-4\text{mA}$			-0.2	V
		$I_C=-80\text{mA}$, $I_B=-2\text{mA}$			-1.2	V
Output Capacitance	C_{OB}	$V_{CB}=-20\text{V}$, $I_E=0\text{A}$, $f=1\text{MHz}$			30	pF
Current Gain Bandwidth Product	f_T	$V_{CE}=-20\text{V}$, $I_E=-10\text{A}$, $f=1\text{MHz}$	10			MHz

TYPICAL CHARACTERISTICS



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