



MPSA194

PNP SILICON TRANSISTOR

PNP EPITAXIAL SILICON TRANSISTOR

■ DESCRIPTION

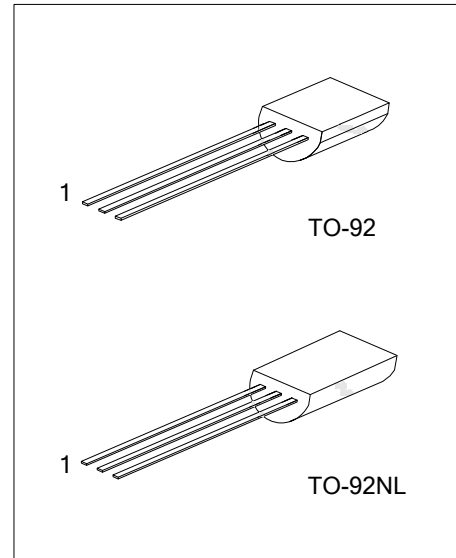
The UTC **MPSA194** is designed for high voltage low power switching applications especially for use in telephone and telecommunication circuits.

■ FEATURES

- * Collector-Emitter Voltage: $V_{CEO}=400V$
- * Power Dissipation: 1.0W

■ APPLICATIONS

- * Telephone Circuit
- * Telecommunication Circuit



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MPSA194L-T92-C-B	MPSA194G-T92-C-B	TO-92	E	B	C	Tape Box
MPSA194L-T92-C-K	MPSA194G-T92-C-K	TO-92	E	B	C	Bulk
MPSA194L-T92-A-B	MPSA194G-T92-A-B	TO-92	E	C	B	Tape Box
MPSA194L-T92-A-K	MPSA194G-T92-A-K	TO-92	E	C	B	Bulk
MPSA194L-T9N-B	MPSA194G-T9N-B	TO-92NL	E	C	B	Tape Box
MPSA194L-T9N-K	MPSA194G-T9N-K	TO-92NL	E	C	B	Bulk

Note: Pin assignment: B: Base C: Collector E: Emitter

<p>MPSA194G-T92-x-B</p>	<p>(1) B: Tape Box, K: Bulk (2) refer to Pin Assignment (3) T92: TO-92, T9N: TO-92NL (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ MARKING INFORMATION

TO-92	TO-92NL

■ ABSOLUTE MAXIMUM RATINGS

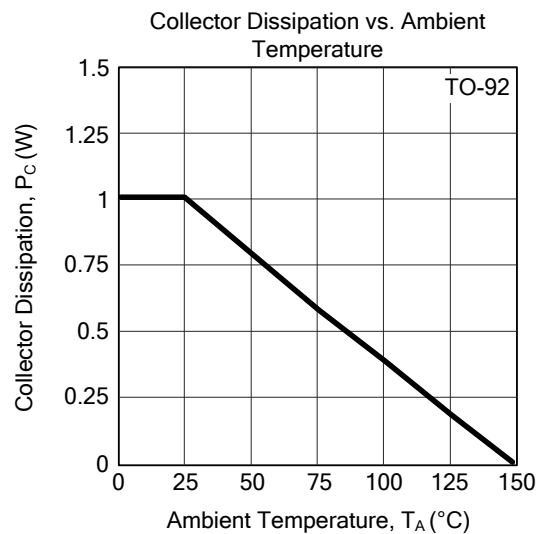
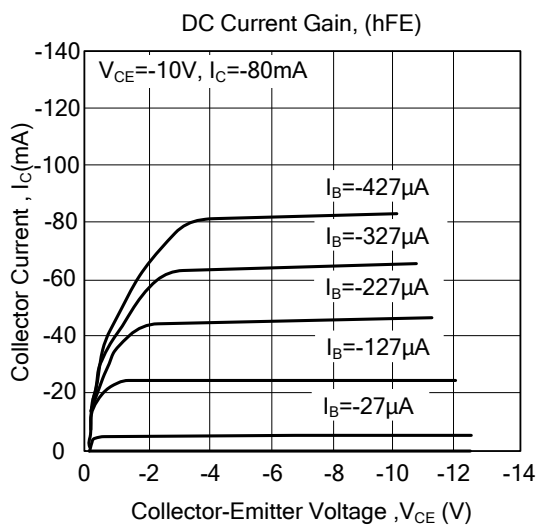
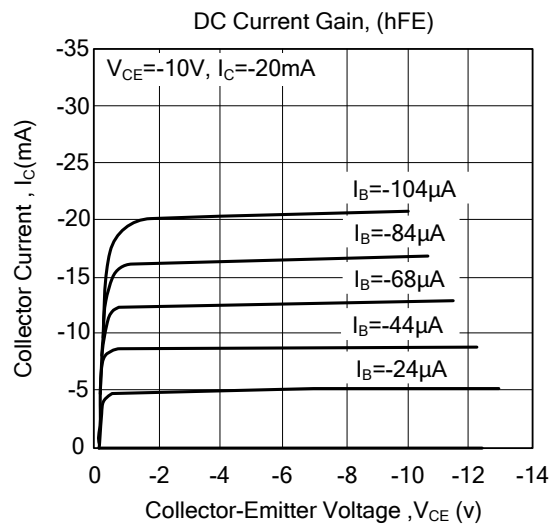
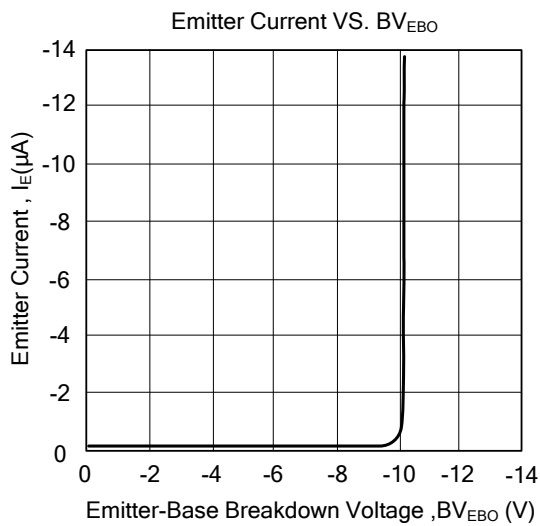
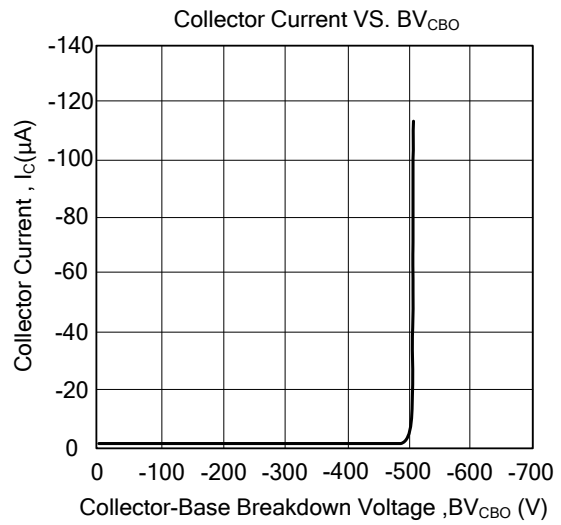
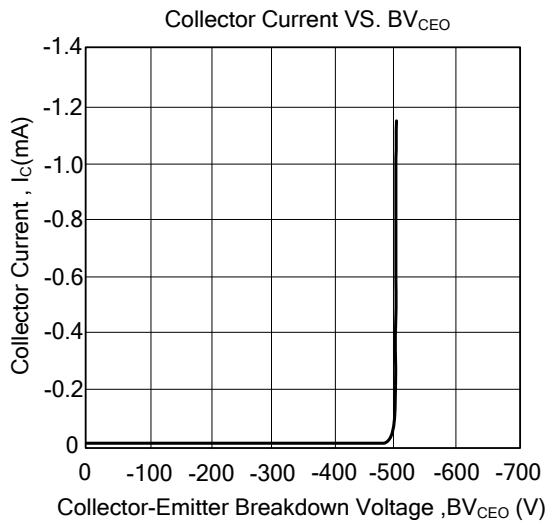
PARAMETER	SYMBOL	RATINGS	UNIT
Collector to Base Voltage	V_{CBO}	-400	V
Collector to Emitter Voltage	V_{CEO}	-400	V
Emitter to Base Voltage	V_{EBO}	-6	V
Collector Current	I_C	-800	mA
Collector Dissipation ($T_A=25^\circ\text{C}$)	P_C	1.0	W
Junction Temperature	T_J	+150	$^\circ\text{C}$
Storage Temperature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

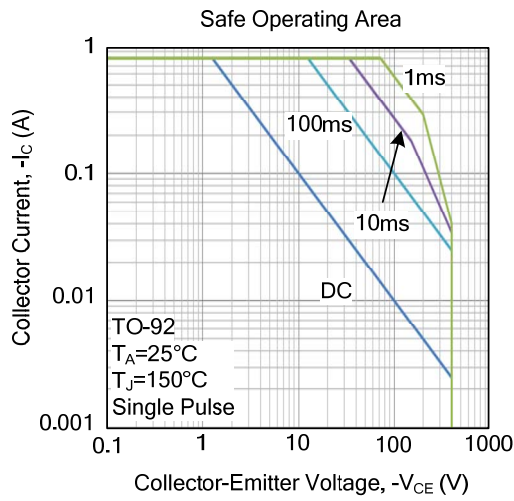
■ ELECTRICAL CHARACTERISTICS ($T_J=25^\circ\text{C}$, unless otherwise specified)

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



■ TYPICAL CHARACTERISTICS (Cont.)



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