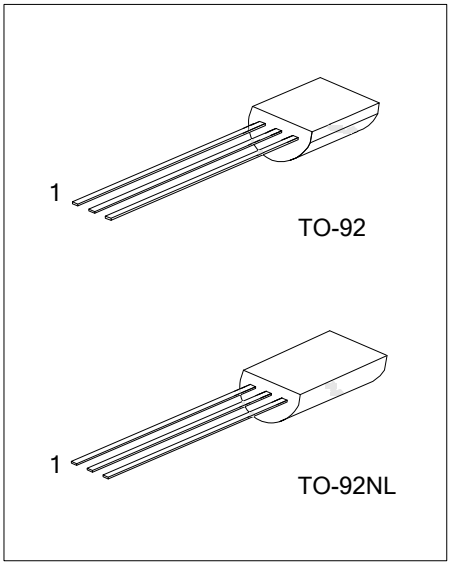
MPSA194

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

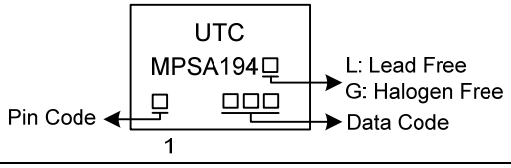
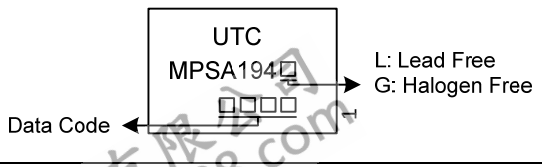
■ ORDERING INFORMATION

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

MPSA194L-T92-x-B (1) Packing Type (2)Pin Assignment (3) Package Type (4) Green Package	(1) B: Tape Box, K: Bulk (2) A:ECB, C:EBC (3) T92: TO-92, T9N: TO-92NL (4) L: Lead Free, G: Halogen Free and Lead Free

■ 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°C)	P_C	1.0	W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55 ~ +150	°C

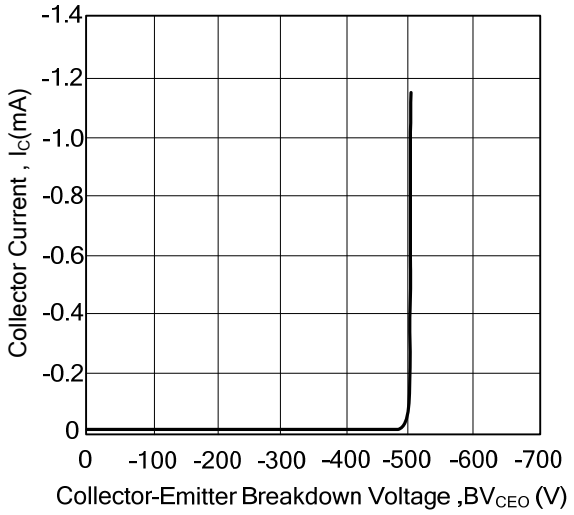
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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

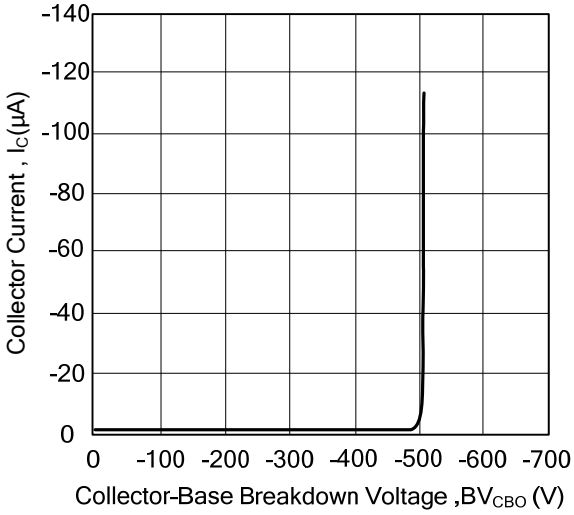
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	I_C =-100μA, I_E =0A	-400			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C =-1mA, I_B =0A	-400			V
Collect Cut-off Current	I_{CBO}	V_{CB} =-400 V, I_E =0A			-10	μA
Collect Cut-off Current	I_{CEO}	V_{CB} =-200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

■ TYPICAL CHARACTERISTICS

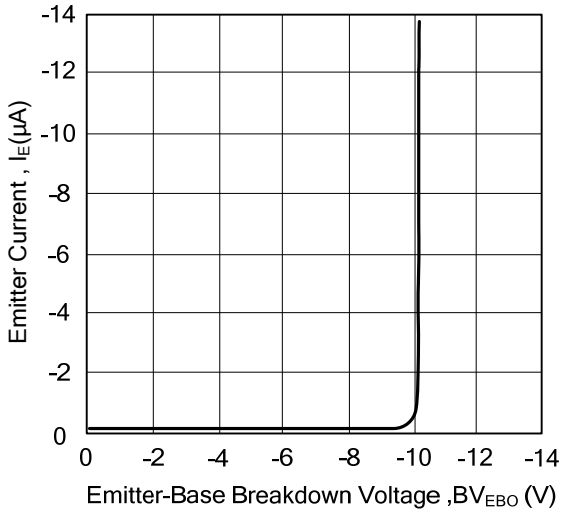
Collector Current VS. BV_{CEO}



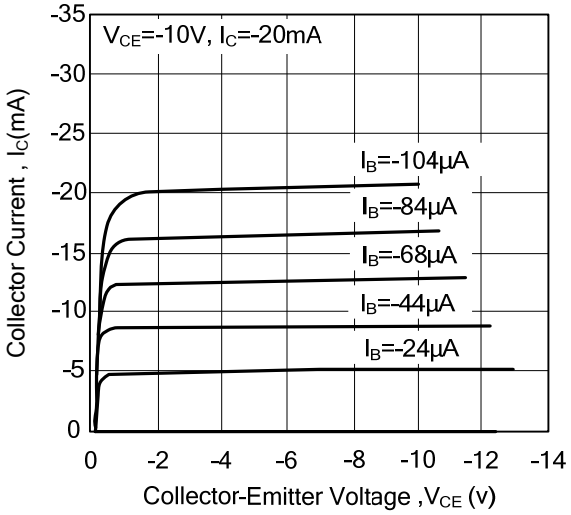
Collector Current VS. BV_{CBO}



Emitter Current VS. BV_{EBO}



DC Current Gain, (hFE)



DC Current Gain, (hFE)