

# UTCMPSA194 PNP EPITAXIAL PLANAR TRANSISTOR

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### DESCRIPTION

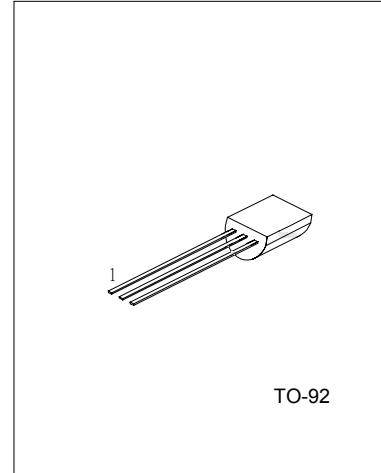
The MPSA194 is designed for high voltage low power switching applications especially for use in telephone and telecommunication circuits.

### FEATURES

- \*Collector-Emitter Voltage:  
V<sub>CEO</sub>=400V
- \*Power Dissipation: 1.0W

### APPLICATIONS

- \*Telephone circuit
- \*Telecommunication circuit



1:EMITTER 2:BASE 3:COLLECTOR

### ABSOLUTE MAXIMUM RATINGS ( Operating temperature range applies unless otherwise specified )

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V <sub>CB0</sub>	400	V
Collector-emitter voltage	V <sub>CEO</sub>	400	V
Emitter-base voltage	V <sub>EB0</sub>	6	V
Collector dissipation(T <sub>a</sub> =25°C)	P <sub>c</sub>	1.0	W
Collector current	I <sub>c</sub>	800	mA
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-55 ~ +150	°C

### ELECTRICAL CHARACTERISTICS(T<sub>J</sub>=25°C,unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	BV <sub>CB0</sub>	I <sub>c</sub> =100μA, I <sub>E</sub> =0	400			V
Collector-emitter breakdown voltage	BV <sub>CEO</sub>	I <sub>c</sub> =1mA, I <sub>B</sub> =0	400			V
Collector cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> =400V, I <sub>E</sub> =0			10	μA
Collector cut-off current	I <sub>CEO</sub>	V <sub>CB</sub> =200V, V <sub>BE</sub> =0			1	μA
Emitter cut-off current	I <sub>EB0</sub>	V <sub>EB</sub> =6V, I <sub>c</sub> =0			0.2	μA
DC current gain(note)	h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>c</sub> =1mA V <sub>CE</sub> =10V, I <sub>c</sub> =20mA V <sub>CE</sub> =10V, I <sub>c</sub> =80mA	50 50 40		800	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> =20mA, I <sub>B</sub> =2mA I <sub>c</sub> =80mA, I <sub>B</sub> =4mA			0.2 1.2	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>c</sub> =20mA, I <sub>B</sub> =2mA			0.9	V
Current Gain Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =20V, I <sub>E</sub> =10mA, f=1MHz	10			MHz
Output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =20V, I <sub>E</sub> =0, f=1MHz			30	pF