

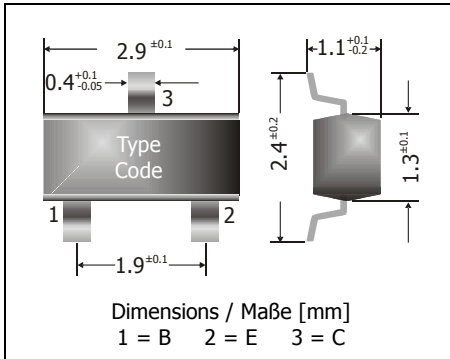
## MMBTA94

PNP

**Surface mount High Voltage Transistors**  
**Hochspannungs-Transistoren für die Oberflächenmontage**

PNP

Version 2015-05-12



Power dissipation  
Verlustleistung

200 mW

Plastic case  
Kunststoffgehäuse

SOT-23  
(TO-236)

Weight approx. – Gewicht ca.

0.01 g

Plastic material has UL classification 94V-0  
Gehäusematerial UL94V-0 klassifiziert

Standard packaging taped and reeled  
Standard Lieferform gegurtet auf Rolle



### Maximum ratings (T<sub>A</sub> = 25°C)

### Grenzwerte (T<sub>A</sub> = 25°C)

			MMBTA94
Collector-Emitter-volt. - Kollektor-Emitter-Spannung	B open	- V <sub>CEO</sub>	400 V
Collector-Base-voltage - Kollektor-Basis-Spannung	E open	- V <sub>CB0</sub>	400 V
Emitter-Base-voltage - Emitter-Basis-Spannung	C open	- V <sub>EBO</sub>	6 V
Power dissipation – Verlustleistung		P <sub>tot</sub>	200 mW <sup>1)</sup>
Collector current – Kollektorstrom (dc)		- I <sub>C</sub>	300 mA
Junction temperature – Sperrschichttemperatur		T <sub>j</sub>	-55...+150°C
Storage temperature – Lagerungstemperatur		T <sub>S</sub>	-55...+150°C

### Characteristics (T<sub>j</sub> = 25°C)

### Kennwerte (T<sub>j</sub> = 25°C)

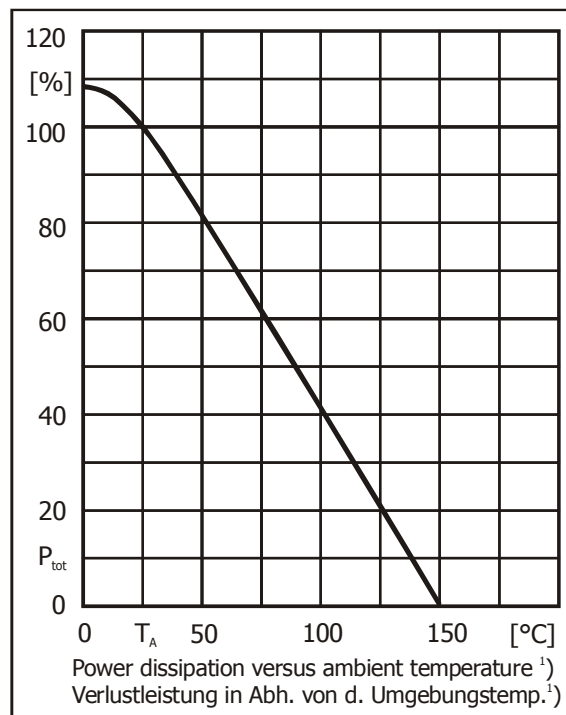
		Min.	Typ.	Max.
Collector-Base cutoff current – Kollektorreststrom				
I <sub>E</sub> = 0, - V <sub>CB</sub> = 300 V	- I <sub>CB0</sub>	–	–	100 nA
Emitter-Base cutoff current – Emitterreststrom				
I <sub>C</sub> = 0, - V <sub>EB</sub> = 4 V	- I <sub>EBO</sub>	–	–	100 nA
Collector saturation voltage – Kollektor-Sättigungsspannung <sup>1)</sup>				
- I <sub>C</sub> = 10 mA, - I <sub>B</sub> = 1 mA	- V <sub>CEsat</sub>	–	–	500 mV
- I <sub>C</sub> = 50 mA, - I <sub>B</sub> = 5 mA	- V <sub>CEsat</sub>	–	–	750 mV
Base saturation voltage – Basis-Sättigungsspannung <sup>2)</sup>				
- I <sub>C</sub> = 10 mA, - I <sub>B</sub> = 1 mA	- V <sub>BEsat</sub>	–	–	750 mV

1 Mounted on P.C. board with 3 mm<sup>2</sup> copper pad at each terminal  
Montage auf Leiterplatte mit 3 mm<sup>2</sup> Kupferbelag (Löt-pad) an jedem Anschluss

1 Tested with pulses t<sub>p</sub> = 300 μs, duty cycle ≤ 2% – Gemessen mit Impulsen t<sub>p</sub> = 300 μs, Schaltverhältnis ≤ 2%

**Characteristics (T<sub>j</sub> = 25°C)**
**Kennwerte (T<sub>j</sub> = 25°C)**

		Min.	Typ.	Max.
DC current gain – Kollektor-Basis-Stromverhältnis				
- V <sub>CE</sub> = 10 V, - I <sub>C</sub> = 1 mA	h <sub>FE</sub>	100	–	–
- V <sub>CE</sub> = 10 V, - I <sub>C</sub> = 10 mA	h <sub>FE</sub>	40	–	–
- V <sub>CE</sub> = 10 V, - I <sub>C</sub> = 30 mA	h <sub>FE</sub>	25	–	–
Collector-Base capacitance – Kollektor-Basis-Kapazität				
- V <sub>CB</sub> = 20 V, I <sub>E</sub> = i <sub>e</sub> = 0, f = 1 MHz	MMBTA92	C <sub>CBO</sub>	–	–
				7 pF
Thermal resistance junction – ambient air Wärmewiderstand Sperrschicht – umgebende Luft		R <sub>thA</sub>	< 500 K/W <sup>2</sup> )	
Recommended complementary PNP transistors Empfohlene komplementäre PNP-Transistoren		MMBTA44		
Marking - Stempelung		MMBTA94 = 4D		



2 Mounted on P.C. board with 3 mm<sup>2</sup> copper pad at each terminal  
Montage auf Leiterplatte mit 3 mm<sup>2</sup> Kupferbelag (Löt-pad) an jedem Anschluss

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