

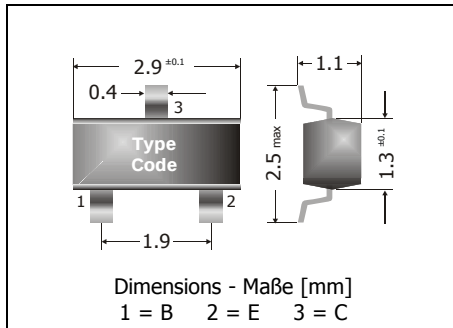
MMBTA55 ... MMBTA56

PNP

General Purpose Si-Epitaxial Planar Transistors
Si-Epitaxial Planar-Transistoren für universellen Einsatz

PNP

Version 2006-08-09



Power dissipation – Verlustleistung

250 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 getupet auf Rolle

Maximum ratings ($T_A = 25^\circ\text{C}$)Grenzwerte ($T_A = 25^\circ\text{C}$)

			MMBTA55	MMBTA56
Collector-Emitter-volt. – Kollektor-Emitter-Spannung	B open	- V_{CEO}	60 V	80 V
Collector-Base-voltage – Kollektor-Basis-Spannung	E open	- V_{CBO}	60 V	80 V
Emitter-Base-voltage – Emitter-Basis-Spannung	C open	- V_{EB0}	4 V	
Power dissipation – Verlustleistung		P_{tot}	250 mW ¹⁾	
Collector current – Kollektorstrom (dc)		- I_C	500 mA	
Base current – Basisstrom		- I_B	100 mA	
Peak Base current – Basis-Spitzenstrom		- I_{BM}	200 mA	
Junction temperature – Sperrschichttemperatur		T_j	-55...+150°C	
Storage temperature – Lagerungstemperatur		T_s	-55...+150°C	

Characteristics ($T_j = 25^\circ\text{C}$)Kennwerte ($T_j = 25^\circ\text{C}$)

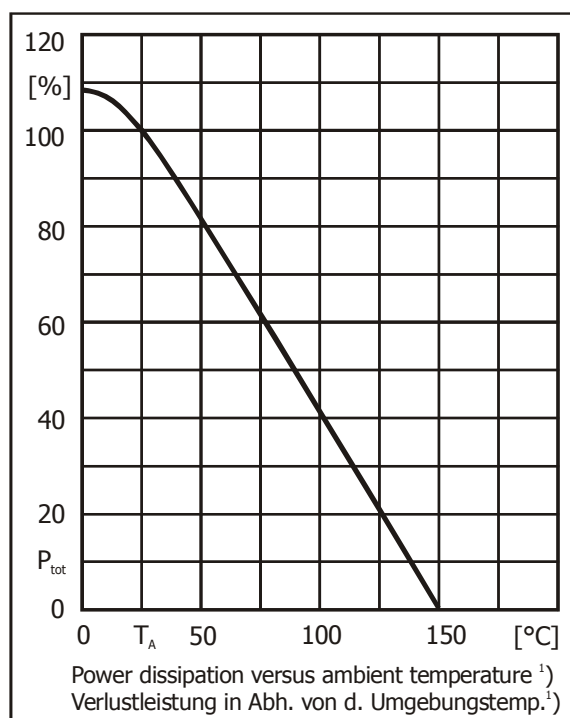
		Min.	Typ.	Max.
DC current gain – Kollektor-Basis-Stromverhältnis ²⁾				
- $I_C = 10\text{ mA}$, - $V_{CE} = 1\text{ V}$	h_{FE}	100	–	–
- $I_C = 100\text{ mA}$, - $V_{CE} = 1\text{ V}$	h_{FE}	100	–	–
Collector-Emitter saturation voltage – Kollektor-Emitter-Sättigungsspg. ²⁾				
- $I_C = 100\text{ mA}$, - $I_B = 10\text{ mA}$	- V_{CEsat}	–	–	0.25 V
Base-Emitter voltage – Basis-Emitter-Spannung				
- $I_C = 100\text{ mA}$, - $V_{CE} = 1\text{ V}$	- V_{BE}	–	–	1.2 V

1 Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Lötpad) an jedem Anschluss

2 Tested with pulses $t_p = 300\text{ }\mu\text{s}$, duty cycle $\leq 2\%$ – Gemessen mit Impulsen $t_p = 300\text{ }\mu\text{s}$, Schaltverhältnis $\leq 2\%$

Characteristics (T_j = 25°C)
Kennwerte (T_j = 25°C)

		Min.	Typ.	Max.
Collector-Base cutoff current – Kollektor-Basis-Reststrom				
- V _{CB} = 60 V, (E open)	MMBTA55 - I _{CBO}	–	–	100 nA
- V _{CB} = 80 V, (E open)	MMBTA56 - I _{CBO}	–	–	100 nA
Emitter-Base cutoff current – Emitter-Basis-Reststrom				
- V _{EB} = 4 V, (C open)	- I _{EB0}	–	–	100 nA
Gain-Bandwidth Product – Transitfrequenz				
- I _C = 100 mA, - V _{CE} = 1 V, f = 100 MHz	f _T	50 MHz	–	–
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft	R _{thA}	< 420 K/W ¹⁾		
Recommended complementary NPN transistors Empfohlene komplementäre NPN-Transistoren		MMBTA05, MMBTA06		
Marking - Stempelung		MMBTA55 = 2H MMBTA56 = 2G(M)		



1 Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Lötpad) an jedem Anschluss