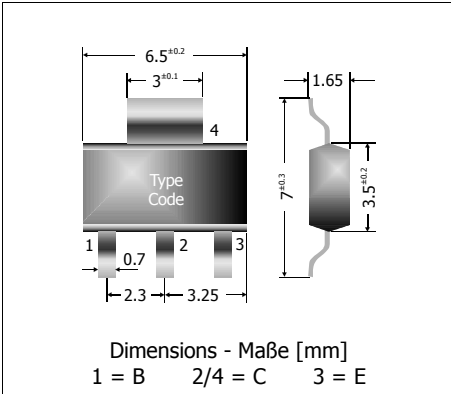


PZT2907 / PZT2907A

PNP Surface Mount Si-Epitaxial Planar Switching Transistors PNP
Si-Epitaxie-Planar-Schalttransistoren für die Oberflächenmontage

Version 2006-05-09



Power dissipation 1.3 W
 Verlustleistung

Plastic case SOT-223
 Kunststoffgehäuse

Weight approx. 0.04 g
 Gewicht ca.

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

Standard packaging taped and reeled
 Standard Lieferform gegurtet auf Rolle



Maximum ratings (T_A = 25°C)

Grenzwerte (T_A = 25°C)

			PZT2907	PZT2907A
Collector-Emitter-volt. - Kollektor-Emitter-Spannung	E open	- V _{CEO}	40 V	60 V
Collector-Base-volt. - Kollektor-Basis-Spannung	B open	- V _{CBO}	60 V	60 V
Emitter-Base-voltage - Emitter-Basis-Spannung	C open	- V _{EBO}	5 V	
Power dissipation – Verlustleistung		P _{tot}	1.3 W ¹⁾	
Collector current – Kollektorstrom (dc)		- I _C	600 mA	
Junction temperature – Sperrschichttemperatur		T _j	-55...+150°C	
Storage temperature – Lagerungstemperatur		T _s	-55...+150°C	

Characteristics (T_j = 25°C)

Kennwerte (T_j = 25°C)

			Min.	Typ.	Max.
Collector-cutoff current – Kollektor-Reststrom	I _E = 0, - V _{CB} = 50 V	PZT2907 - I _{CBO}	–	–	20 nA
		PZT2907A - I _{CBO}	–	–	10 nA
	I _E = 0, - V _{CB} = 50 V, T _j = 150°C	PZT2907 - I _{CBO}	–	–	20 µA
		PZT2907A - I _{CBO}	–	–	10 µA
Emitter-cutoff current – Emitter-Reststrom	I _C = 0, - V _{EB} = 3 V	- I _{EBO}	–	–	10 nA
Collector saturation voltage – Kollektor-Sättigungsspannung ²⁾	- I _C = 150 mA, - I _B = 15 mA - I _C = 500 mA, - I _B = 50 mA	- V _{CEsat}	–	–	0.4 V
		- V _{CEsat}	–	–	1.6 V
Base saturation voltage – Basis-Sättigungsspannung ²⁾	- I _C = 150 mA, - I _B = 15 mA - I _C = 500 mA, - I _B = 50 mA	PZT2907 - V _{BEsat}	–	–	
		PZT2907A - V _{BEsat}	–	–	

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

2 Tested with pulses t_p = 300 µs, duty cycle ≤ 2% – Gemessen mit Impulsen t_p = 300 µs, Schaltverhältnis ≤ 2%

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

			Min.	Typ.	Max.
DC current gain – Kollektor-Basis-Stromverhältnis					
- I _C = 0.1 mA, - V _{CE} = 10 V	PZT2907	h _{FE}	35	–	–
	PZT2907A	h _{FE}	75	–	–
- I _C = 1 mA, - V _{CE} = 10 V	PZT2907	h _{FE}	50	–	–
	PZT2907A	h _{FE}	100	–	–
- I _C = 10 mA, - V _{CE} = 10 V	PZT2907	h _{FE}	75	–	–
	PZT2907A	h _{FE}	100	–	–
- I _C = 150 mA, - V _{CE} = 10 V	PZT2907	h _{FE}	100	–	300
	PZT2907A	h _{FE}	100	–	300
- I _C = 500 mA, - V _{CE} = 10 V	PZT2907	h _{FE}	30	–	–
	PZT2907A	h _{FE}	50	–	–
Gain-Bandwidth Product – Transitfrequenz					
- I _C = 20 mA, - V _{CE} = 20 V, f = 100 MHz		f _T	200 MHz	–	–
Collector-Base Capacitance – Kollektor-Basis-Kapazität					
- V _{CB} = 10 V, I _E = i _e = 0, f = 1 MHz		C _{CBO}	–	–	8 pF
Emitter-Base Capacitance – Emitter-Basis-Kapazität					
- V _{EB} = 0.5 V, I _C = i _c = 0, f = 1 MHz		C _{EBO}	–	–	30 pF
Switching times – Schaltzeiten					
delay time	- V _{CC} = 30 V, - I _C = 150 mA,	t _d	–	–	10
rise time	- I _{B1} = 15 mA	t _r	–	–	40
storage time	- V _{CC} = 6 V, - I _C = 150 mA,	t _s	–	–	80
fall time	- I _{B1} = - I _{B2} = 15 mA	t _f	–	–	30
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft		R _{thA}	< 93 K/W ¹⁾		
Thermal resistance junction to soldering point Wärmewiderstand Sperrschicht – Löt看		R _{thS}	< 27 K/W		
Recommended complementary NPN transistors Empfohlene komplementäre NPN-Transistoren			PZT2222, PZT2222A		

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