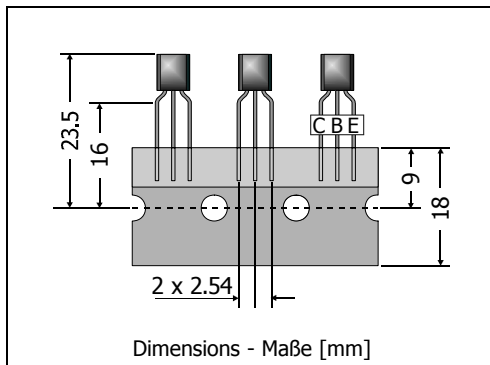


2N5550 / 2N5551**NPN**

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

NPN

Version 2006-06-17



Power dissipation
Verlustleistung

625 mW

Plastic case
Kunststoffgehäuse

TO-92
(10D3)

Weight approx. – Gewicht ca.

0.18 g

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

Standard packaging taped in ammo pack
Standard Lieferform gegurtet in Ammo-Pack

**Maximum ratings (T_A = 25°C)****Grenzwerte (T_A = 25°C)**

			2N5550	2N5551
Collector-Emitter-volt. – Kollektor-Emitter-Spannung	B open	V _{CEO}	140 V	160 V
Collector-Base-voltage – Kollektor-Basis-Spannung	E open	V _{CBO}	160 V	180 V
Emitter-Base-voltage – Emitter-Basis-Spannung	C open	V _{EBO}	6 V	
Power dissipation – Verlustleistung		P _{tot}	625 mW 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.
DC current gain – Kollektor-Basis-Stromverhältnis ²⁾					
V _{CE} = 5 V, I _C = 1 mA	2N5550	h _{FE}	60	–	–
V _{CE} = 5 V, I _C = 10 mA		h _{FE}	60	–	250
V _{CE} = 5 V, I _C = 50 mA		h _{FE}	20	–	–
V _{CE} = 5 V, I _C = 1 mA	2N5551	h _{FE}	80	–	–
V _{CE} = 5 V, I _C = 10 mA		h _{FE}	80	–	250
V _{CE} = 5 V, I _C = 50 mA		h _{FE}	30	–	–
Collector-Emitter saturation voltage – Kollektor-Emitter-Sättigungsspg. ²⁾					
I _C = 10 mA, I _B = 1 mA	2N5550	V _{CEsat}	–	–	0.15 V
	2N5551	V _{CEsat}	–	–	0.15 V
I _C = 50 mA, I _B = 5 mA	2N5550	V _{CEsat}	–	–	0.25 V
	2N5551	V _{CEsat}	–	–	0.20 V

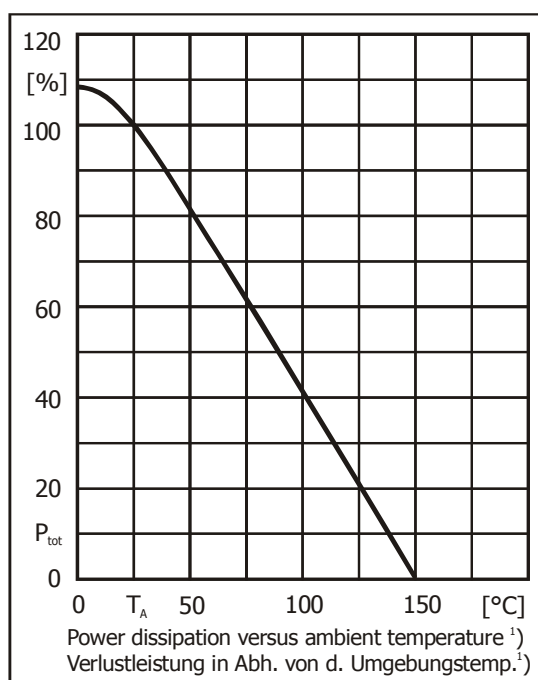
1 Valid, if leads are kept at ambient temperature at a distance of 2 mm from case

Gültig wenn die Anschlussdrähte in 2 mm Abstand vom Gehäuse auf Umgebungstemperatur gehalten werden

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

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

			Min.	Typ.	Max.
Base-Emitter saturation voltage – Basis-Emitter-Sättigungsspannung ²⁾					
$I_C = 10\text{ mA}$, $I_B = 1\text{ mA}$	2N5550	V_{BEsat}	–	–	1.0 V
$I_C = 50\text{ mA}$, $I_B = 5\text{ mA}$		V_{BEsat}	–	–	1.2 V
$I_C = 10\text{ mA}$, $I_B = 1\text{ mA}$	2N5551	V_{BEsat}	–	–	1.0 V
$I_C = 50\text{ mA}$, $I_B = 5\text{ mA}$		V_{BEsat}	–	–	1.0 V
Collector-Base cutoff current – Kollektor-Basis-Reststrom					
$V_{CB} = 100\text{ V}$, (E open)	2N5550	I_{CBO}	–	–	100 nA
$V_{CB} = 120\text{ V}$, (E open)	2N5551	I_{CBO}	–	–	50 nA
Emitter-Base cutoff current – Emitter-Basis-Reststrom					
$V_{EB} = 4\text{ V}$, (C open)		I_{EBO}	–	–	50 nA
Gain-Bandwidth Product – Transitfrequenz					
$I_C = 10\text{ mA}$, $V_{CE} = 10\text{ V}$, $f = 100\text{ MHz}$		f_T	100 MHz	–	300 MHz
Collector-Base Capacitance – Kollektor-Basis-Kapazität					
$V_{CB} = 10\text{ V}$, $I_E = i_e = 0$, $f = 1\text{ MHz}$		C_{CBO}	–	–	6 pF
Noise figure – Rauschzahl					
$V_{CE} = 5\text{ V}$, $I_C = 200\text{ }\mu\text{A}$, $R_G = 2\text{ k}\Omega$, $f = 30\text{ Hz} \dots 15\text{ kHz}$	2N5550	F	–	–	10 dB
	2N5551	F	–	–	8 dB
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft			R_{thA}	< 200 K/W ¹⁾	
Recommended complementary PNP transistors Empfohlene komplementäre PNP-Transistoren			2N5400 / 2N5401		



1 Valid, if leads are kept at ambient temperature at a distance of 2 mm from case
Gültig wenn die Anschlussdrähte in 2 mm Abstand vom Gehäuse auf Umgebungstemperatur gehalten werden