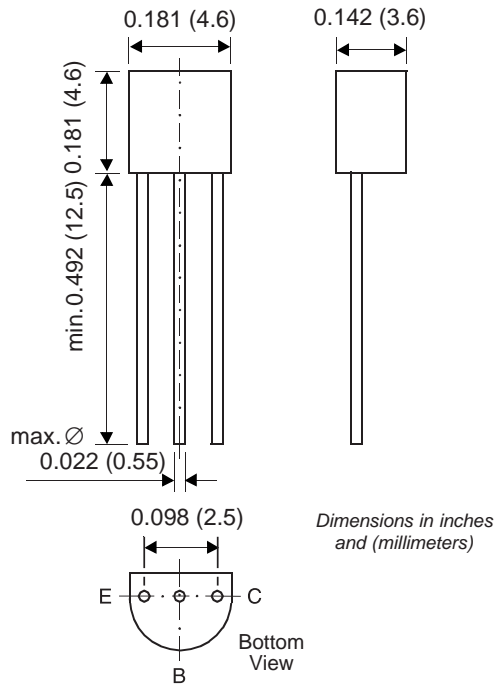


## Small Signal Transistor (PNP)

**TO-226AA (TO-92)**


### Features

- PNP Silicon Epitaxial Transistor for switching and amplifier applications.
- Especially suitable for AF-driver and low-power output stages.
- As complementary type, the NPN transistor 2N4124 is recommended.

### Mechanical Data

**Case:** TO-92 Plastic Package

**Weight:** approx. 0.18g

**Packaging Codes/Options:**

E6/Bulk – 5K per container, 20K/box

E7/4K per Ammo mag., 20K/box

### Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Collector-Emitter Voltage	$-V_{CEO}$	25	V
Collector-Base Voltage	$-V_{CBO}$	25	V
Emitter-Base Voltage	$-V_{EBO}$	4	V
Collector Current	$-I_C$	200	mA
Peak Collector Current	$-I_{CM}$	800	mA
Base Current	$-I_B$	50	mA
Power Dissipation at $T_{amb} = 25^\circ\text{C}$	$P_{tot}$	625 <sup>(1)</sup>	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	200 <sup>(1)</sup>	$^\circ\text{C}/\text{W}$
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_s$	-65 to +150	$^\circ\text{C}$

**Note:** (1) Valid provided that leads at a distance of 2 mm from case are kept at ambient temperature.

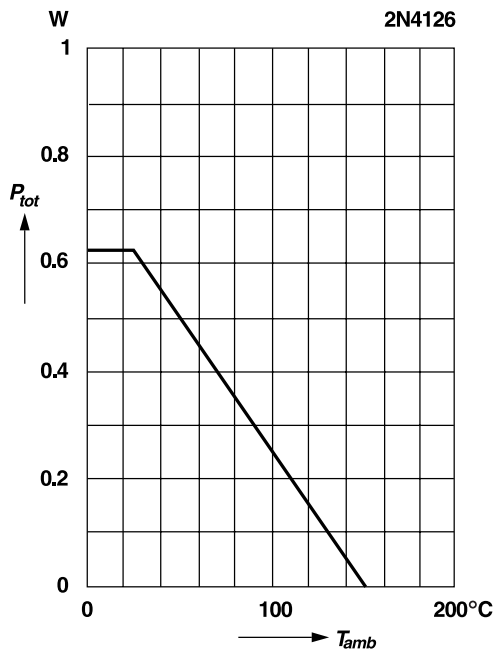
**Electrical Characteristics** ( $T_J = 25^\circ\text{C}$  unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
DC Current Gain	$h_{FE}$	$V_{CE} = -1\text{ V}, I_C = -2.0\text{ mA}$ $V_{CE} = -1\text{ V}, I_C = -50\text{ mA}$	120 —	— 60	360 —	—
Collector Cutoff Current	$-I_{CBO}$	$V_{CB} = -20\text{ V}$	—	—	50	nA
Emitter Cutoff Current	$-I_{EBO}$	$V_{EB} = -3\text{ V}$	—	—	50	nA
Collector Saturation Voltage	$-V_{CEsat}$	$I_C = -50\text{ mA}, I_B = -5\text{ mA}$	—	—	0.4	V
Base Saturation Voltage	$-V_{BEsat}$	$I_C = -50\text{ mA}, I_B = -5\text{ mA}$	—	—	0.95	V
Collector-Emitter Breakdown Voltage	$-V_{(BR)CEO}$	$I_C = -1\text{ mA}$	25	—	—	V
Collector-Base Breakdown Voltage	$-V_{(BR)CBO}$	$I_C = -10\text{ }\mu\text{A}$	25	—	—	V
Emitter-Base Breakdown Voltage	$-V_{(BR)EBO}$	$I_E = -10\text{ }\mu\text{A}$	4	—	—	V
Gain-Bandwidth Product	$f_T$	$V_{CE} = -5\text{ V}, I_C = -10\text{ mA}$ $f = 50\text{ MHz}$	—	200	—	MHz
Collector-Base Capacitance	$C_{CBO}$	$V_{CB} = -10\text{ V}, f = 1\text{ MHz}$	—	12	—	pF

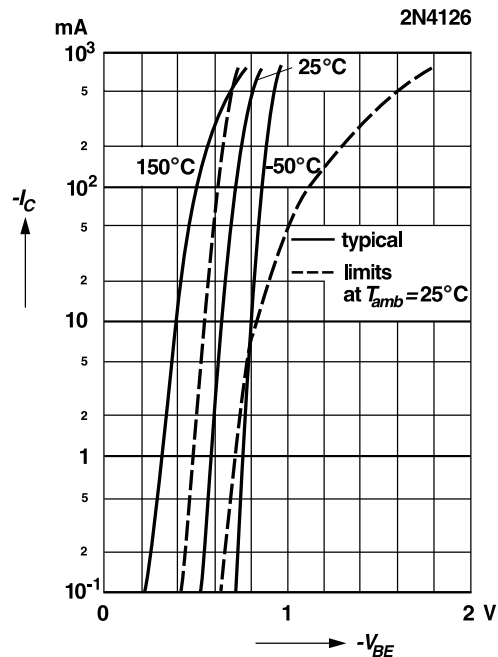
**Ratings and Characteristic Curves** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

**Admissible power dissipation versus ambient temperature**

Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case



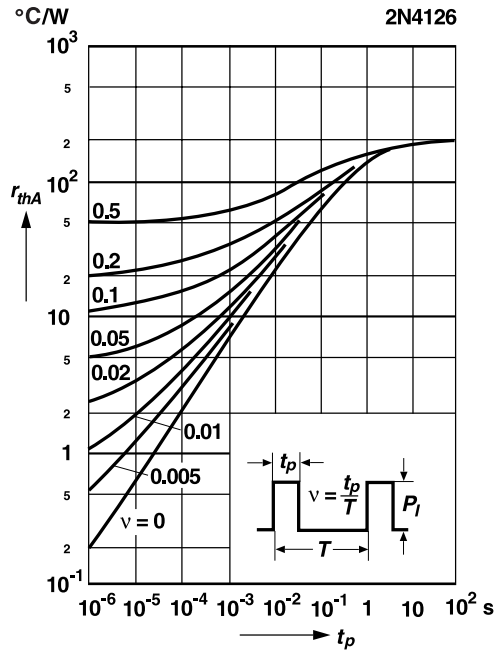
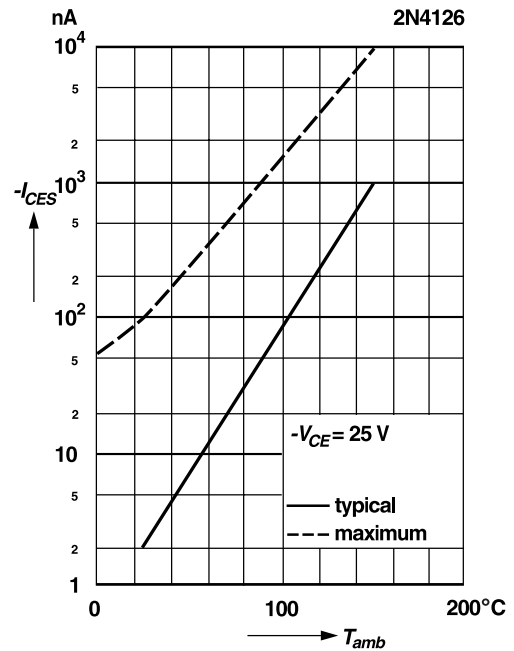
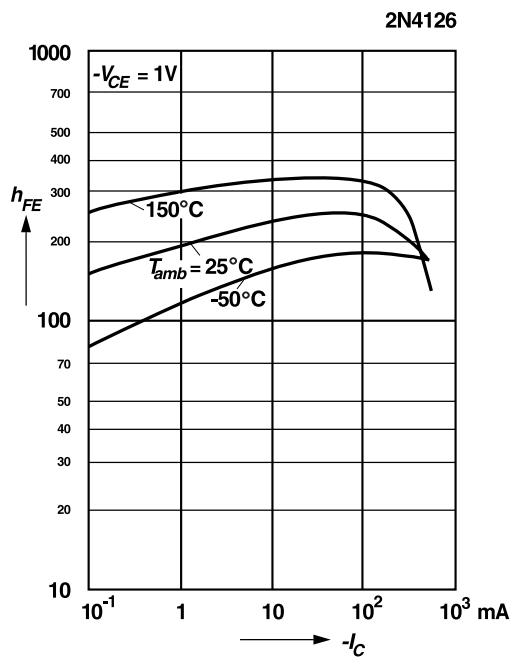
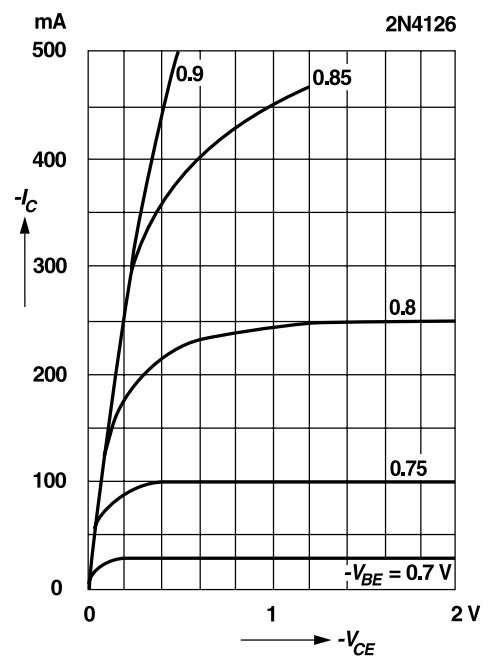
**Collector current versus base-emitter voltage**



**Ratings and Characteristic Curves** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

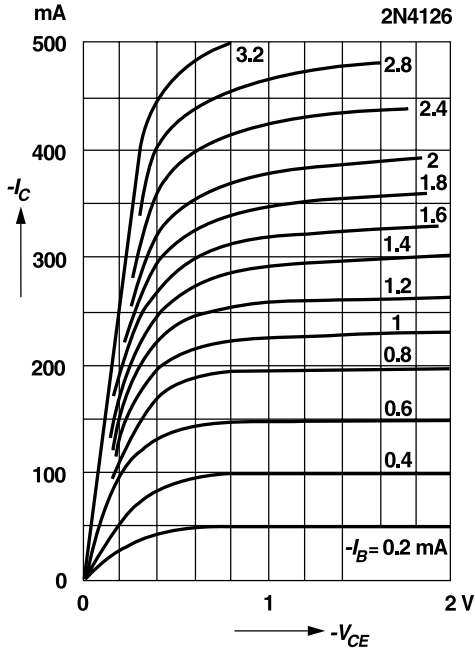
**Pulse thermal resistance versus pulse duration**

Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case


**Collector-emitter cutoff current versus ambient temperature**

**DC current gain versus collector current**

**Common emitter collector characteristics**


**Ratings and Characteristic Curves** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

**Common emitter collector characteristics**



**Common emitter collector characteristics**

