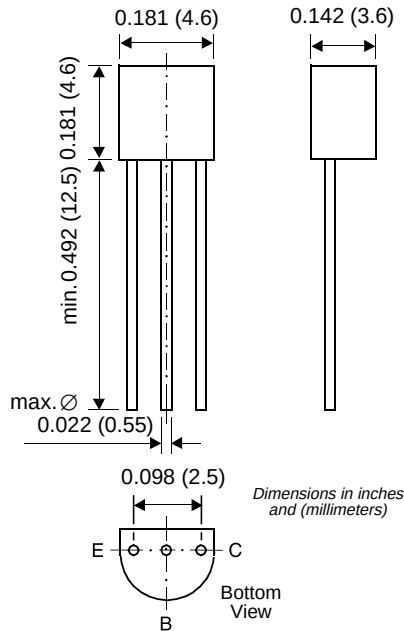




Small Signal Transistor (PNP)

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

E7/4K per Ammo tape

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

Parameters	Symbols	Value	Units
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 ⁽¹⁾	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	200 ⁽¹⁾	$^\circ\text{C/W}$
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_s	- 65 to +150	$^\circ\text{C}$

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

Small Signal Transistor (PNP)

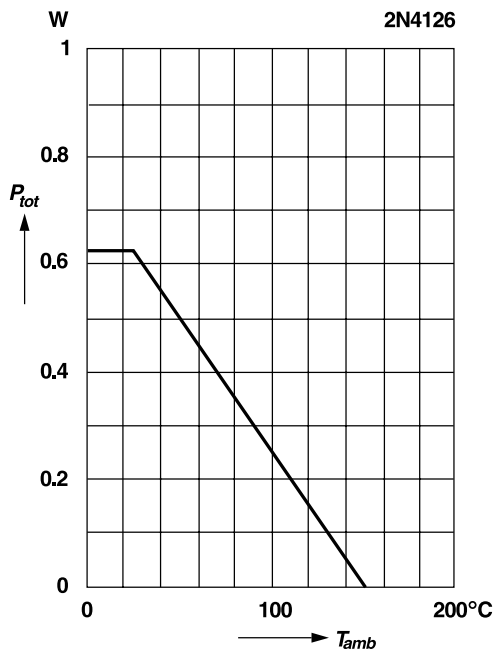
Electrical Characteristics ($T_J = 25^\circ\text{C}$ unless otherwise noted)

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

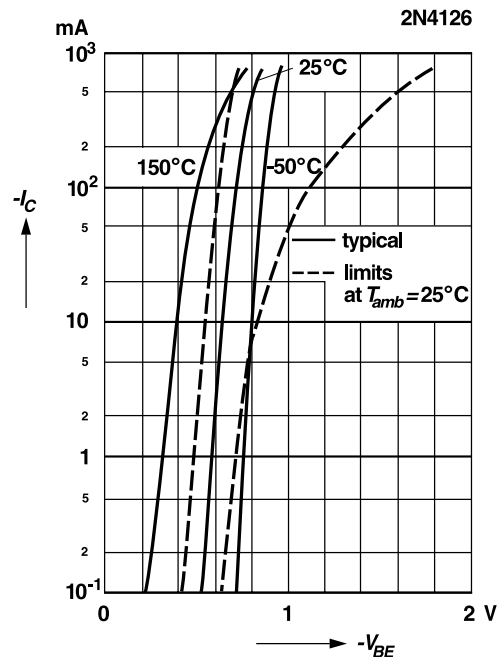
Ratings and Characteristic Curves

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

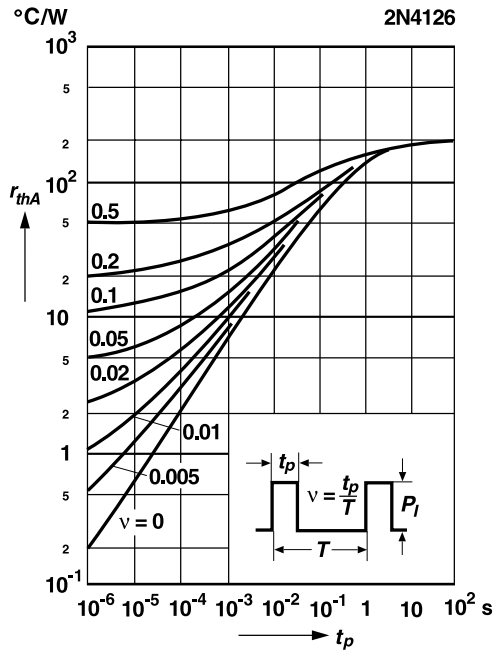


Small Signal Transistor (PNP)

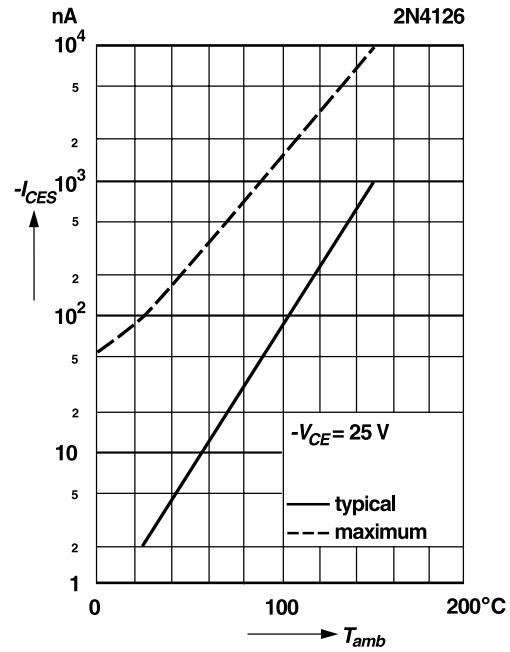
Ratings and Characteristic Curves

**Pulse thermal resistance
versus pulse duration**

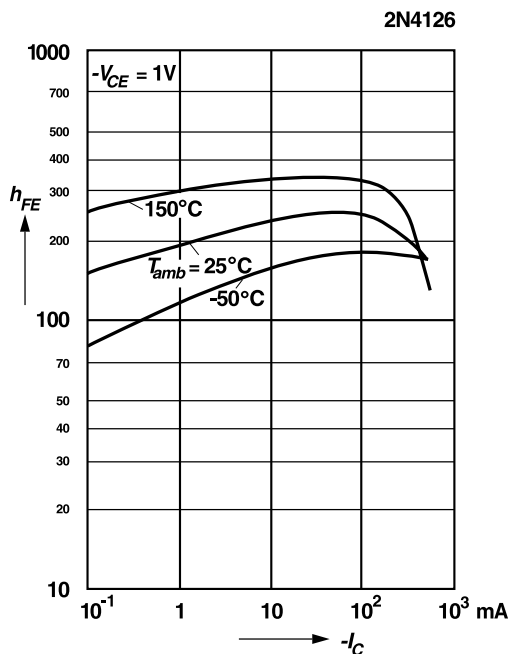
Valid provided that leads are kept at ambient temperature
at a distance of 2 mm from case



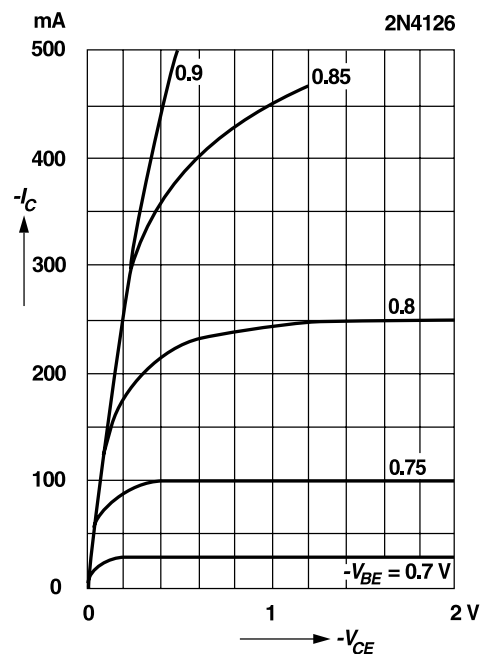
**Collector-emitter cutoff current
versus ambient temperature**



**DC current gain
versus collector current**



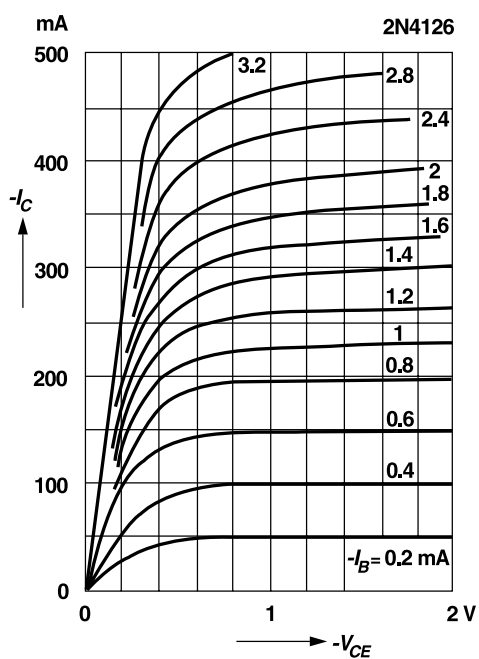
**Common emitter
collector characteristics**



Small Signal Transistor (PNP)

Ratings and Characteristic Curves

Common emitter
collector characteristics



Common emitter
collector characteristics

