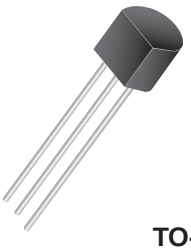
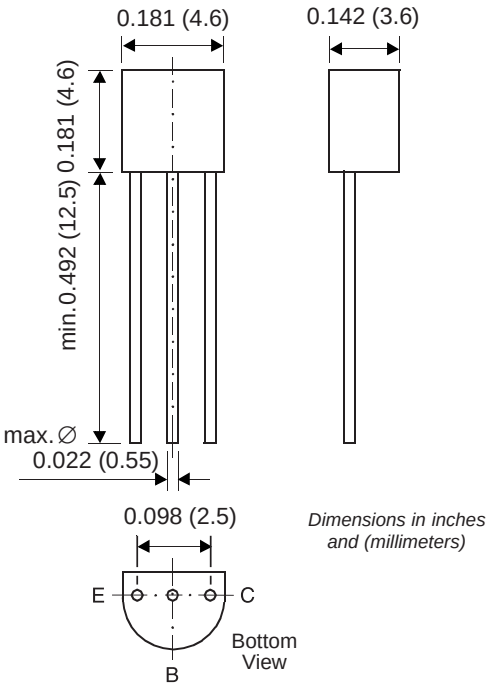
Small Signal Transistor (PNP)



TO-226AA (TO-92)



Dimensions in inches and (millimeters)

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°C	P_{tot}	625(1)	mW
Thermal Resistance Junction to Ambient Air	$R_{\Theta JA}$	200(1)	°C/W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	–65 to +150	°C

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

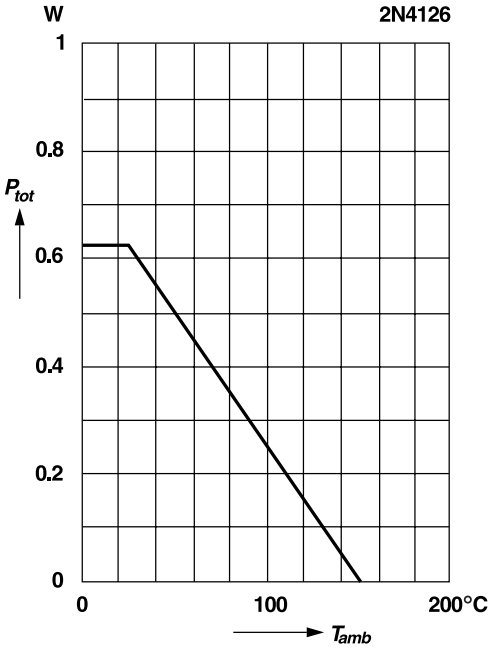
Electrical Characteristics (T_J = 25°C unless otherwise noted)

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

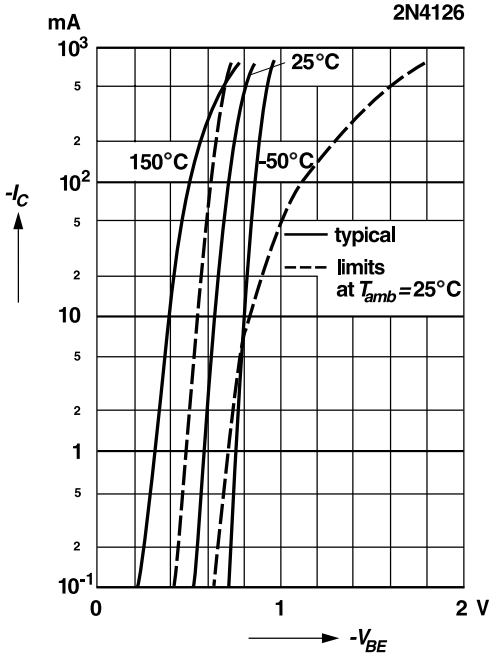
Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

Admissible power dissipation versus ambient temperature

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



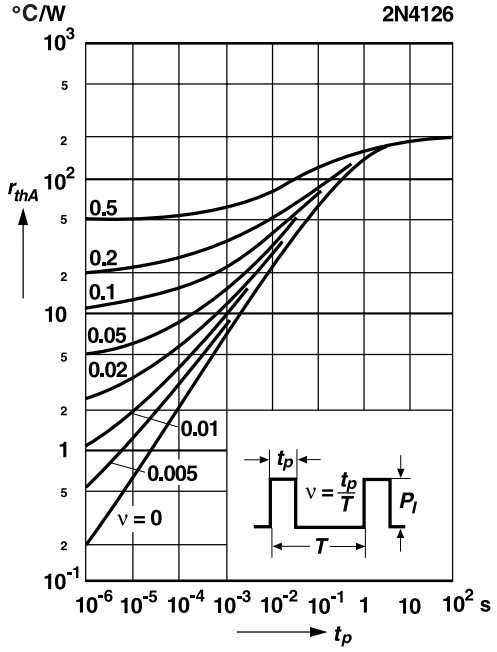
Collector current versus base-emitter voltage



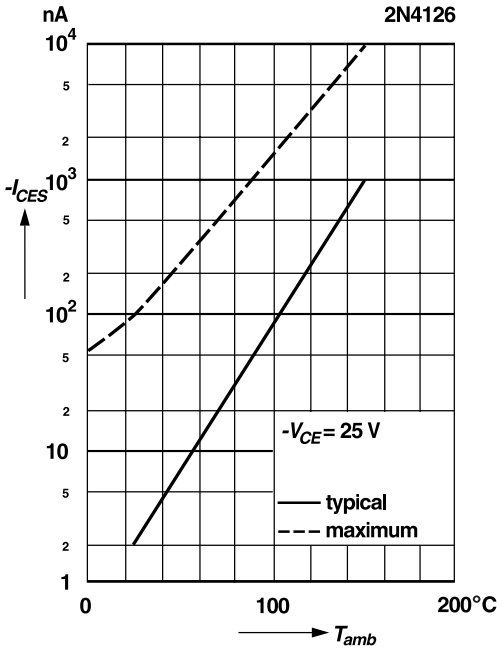
Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

Pulse thermal resistance versus pulse duration

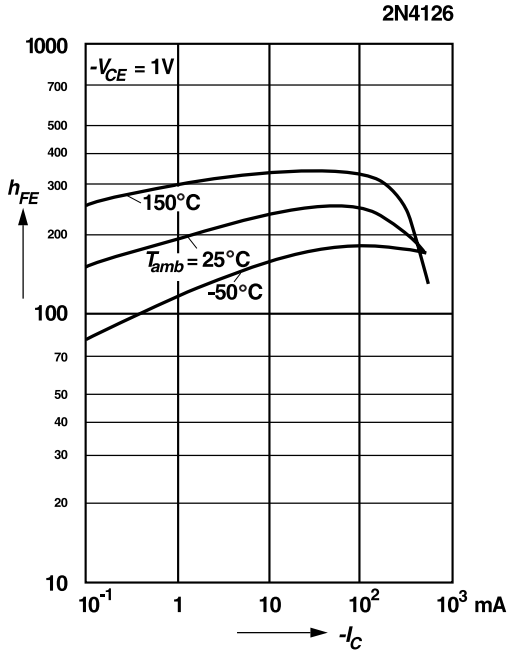
Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case



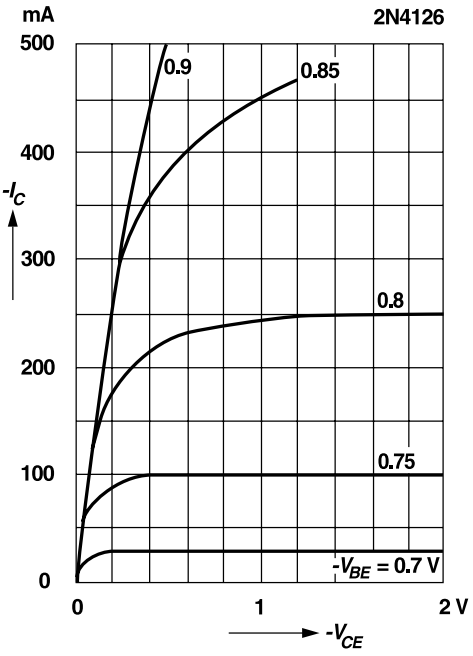
Collector-emitter cutoff current versus ambient temperature



DC current gain versus collector current

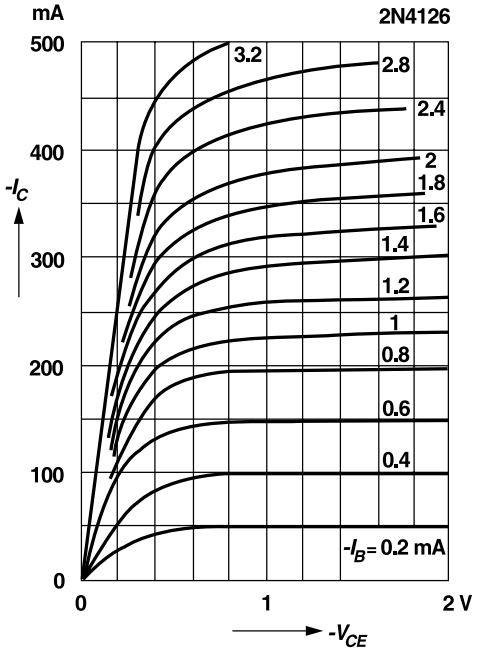


Common emitter collector characteristics



Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

Common emitter collector characteristics



Common emitter collector characteristics