

Transistors

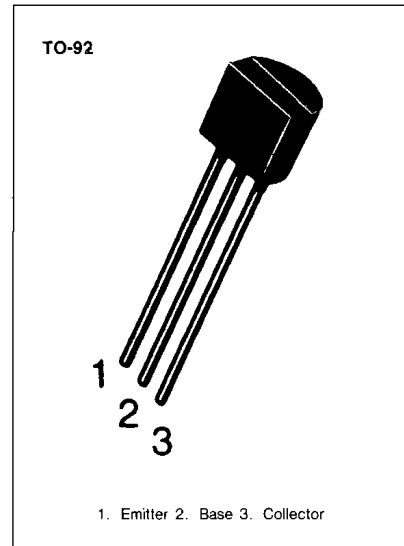
2N4126

AMPLIFIER TRANSISTOR

- Collector-Emitter Voltage: $V_{CE0} =$ **2N4126: 25V**
- Collector Dissipation: P_C (max)=625mW

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	-25	V
Collector-Emitter Voltage	V_{CE0}	-25	V
Emitter-Base Voltage	V_{EB0}	-4	V
Collector Current	I_C	-200	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55~150	$^\circ\text{C}$



ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CB0}	$I_C = -10\mu\text{A}, I_E = -0$				
* Collector-Emitter Breakdown Voltage	BV_{CE0}	$I_C = -1\text{mA}, I_B = 0$	-25			V
Emitter-Base Breakdown Voltage	BV_{EB0}	$I_E = -10\mu\text{A}, I_C = 0$	-25			V
Collector Cut-off Current	I_{CB0}	$V_{CB} = -20\text{V}, V_C = 0$	-4		-50	nA
Emitter Cut-off Current	I_{EB0}	$V_{BE} = 3\text{V}, I_C = 0$			-50	nA
* DC Current Gain	h_{FE}	$V_{CE} = -1\text{V}, I_C = -2\text{mA}$	120		360	
		$V_{CE} = -1\text{V}, I_C = -50\text{mA}$	60			
* Collector-Emitter Saturation Voltage	$V_{CE}(\text{sat})$	$I_C = -50\text{mA}, I_B = -5\text{mA}$			-0.4	V
* Base-Emitter Saturation Voltage	$V_{BE}(\text{sat})$	$I_C = -50\text{mA}, I_B = -5\text{mA}$			-0.95	V
Current Gain Bandwidth Product	f_T	$V_{CE} = -20\text{V}, I_C = -10\text{mA}$ $f = 100\text{MHz}$	250			MHz
Collector-Base Capacitance	C_{CB}	$V_{CB} = 5\text{V}, I_E = 0$ $f = 1\text{MHz}$			4.5	pF
Noise figure	N_F	$I_C = -100\mu\text{A}, V_{CE} = -5\text{V}$ $R_G = 1\text{K}\Omega$ Noise Bandwidth = 10Hz to 15.7KHz			4	dB

* Pulse Test: Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$

