



Data Sheet No. 2N4261

**Type 2N4261**

**Geometry 0014**

**Polarity PNP**

**Qual Level: JAN - JANS**

**Generic Part Number:  
2N4261**

**REF: MIL-PRF-19500/511**

**Features:**

[Request Quotation](#)

- Fast switching small signal silicon transistor.
- Housed in a [TO-72](#) case.
- Also available in chip form using the [0014](#) chip geometry.
- The Min and Max limits shown are per [MIL-PRF-19500/511](#) which Semicoa meets in all cases.
- [Radiation graphs available.](#)



[TO-72](#)

**Maximum Ratings**

$T_C = 25^{\circ}\text{C}$  unless otherwise specified

Rating	Symbol	Rating	Unit
Collector-Emitter Voltage	$V_{CEO}$	15	V
Collector-Base Voltage	$V_{CBO}$	15	V
Emitter-Base Voltage	$V_{EBO}$	4.5	V
Collector Current, Continuous	$I_C$	30	mA
Operating Junction Temperature	$T_J$	-65 to +200	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-65 to +200	$^{\circ}\text{C}$

## Electrical Characteristics

 $T_C = 25^{\circ}\text{C}$  unless otherwise specified

OFF Characteristics	Symbol	Min	Max	Unit
Collector-Base Breakdown Voltage $I_C = 10\ \mu\text{A}$	$V_{(BR)CBO}$	15	---	V
Collector-Emitter Breakdown Voltage $I_C = 10\ \text{mA}$	$V_{(BR)CEO}$	15	---	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	4.5	---	V
Collector-Emitter Cutoff Current $V_{CE} = 10\ \text{V}, V_{EB} = 0.4\ \text{V}$ $V_{CE} = 10\ \text{V}, V_{EB} = 2.0\ \text{V}$ $V_{CE} = 10\ \text{V}, V_{EB} = 2.0\ \text{V}, T_A = +150^{\circ}\text{C}$	$I_{CEX1}$ $I_{CEX2}$ $I_{CEX3}$	--- --- ---	50 5.0 5.0	nA nA $\mu\text{A}$
Base Cutoff Current $V_{CE} = 10\ \text{V}, V_{EB} = 2.0\ \text{V}$	$I_{BEX}$	---	5.0	nA
Emitter-Base Cutoff Current $V_{EB} = 4.5\ \text{V}$	$I_{EBO}$	---	10	$\mu\text{A}$

ON Characteristics	Symbol	Min	Max	Unit
<b>Forward current Transfer Ratio</b> $I_C = 1.0\ \text{mA}, V_{CE} = 1.0\ \text{V}$ $I_C = 10\ \text{mA}, V_{CE} = 1.0\ \text{V}$ , pulsed $I_C = 30\ \text{mA}, V_{CE} = 1.0\ \text{V}$ pulsed $I_C = 10\ \text{mA}, V_{CE} = 1.0\ \text{V}, T_A = -55^{\circ}\text{C}$	$h_{FE1}$ $h_{FE2}$ $h_{FE3}$ $h_{FE4}$	25 30 20 15	--- 150 --- ---	--- --- --- ---
<b>Collector-Emitter Saturation Voltage</b> $I_C = 1.0\ \text{mA}, I_B = 0.1\ \text{mA}$ $I_C = 10\ \text{mA}, I_B = 1.0\ \text{mA}$	$V_{CE(sat)1}$ $V_{CE(sat)2}$	--- ---	0.15 0.35	V dc V dc
<b>Base-Emitter Saturation Voltage</b> $V_{CE} = 1.0\ \text{V}, I_C = 1.0\ \text{mA}$ $V_{CE} = 1.0\ \text{V}, I_C = 10\ \text{mA}$	$V_{BE1}$ $V_{BE2}$	--- ---	0.8 1.0	V dc V dc

Small Signal Characteristics	Symbol	Min	Max	Unit
<b>Magnitude of Common Emitter Small Signal Short Circuit Forward Current Transfer Ratio</b> $V_{CE} = 4.0\ \text{V}, I_C = 5.0\ \text{mA}, f = 100\ \text{MHz}$ $V_{CE} = 10\ \text{V}, I_C = 10\ \text{mA}, f = 100\ \text{MHz}$	$ h_{fe1} $ $ h_{fe2} $	15 20	--- ---	--- ---
<b>Open Circuit Output Capacitance</b> $V_{CB} = 4.0\ \text{V}, I_E = 0, 100\ \text{kHz} < f < 1\ \text{MHz}$	$C_{OBO}$	---	2.5	pF
<b>Input Capacitance, Output Open Circuited</b> $V_{EB} = 0.5\ \text{V}, I_C = 0, 100\ \text{kHz} < f < 1\ \text{MHz}$	$C_{IBO}$	---	2.5	pF

Switching Characteristics	Symbol	Min	Max	Unit
<b>Collector-Base Time Constant</b> $V_{CE} = 4.0\ \text{V}, I_C = 5.0\ \text{mA}, f = 31.8\ \text{MHz}$	$r'b'C_{C1}$	---	60	ps
<b>Collector-Base Time Constant</b> $V_{CE} = 4.0\ \text{V}, I_C = 10\ \text{mA}, f = 31.8\ \text{MHz}$	$r'b'C_{C2}$	---	50	ps
<b>Saturated Turn On Switching Time to 90%</b> $V_{CC} = 17\ \text{V}, 50\ \text{ohm pulse generator}$	$t_{ON}$	---	2.5	ns
<b>Saturated Turn Off Switching Time to 10%</b> $V_{CC} = 17\ \text{V}, 50\ \text{ohm pulse generator}$	$t_{OFF}$	---	3.5	ns

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