

**Type 2N2484**  
**Geometry 0220 / 0307**  
**Polarity NPN**  
**Qual Level: Pending**

**Generic Part Number:**  
**2N2484**

**REF: MIL-PRF-19500/376**

**Features:**

[Request Quotation](#)

- General-purpose high gain, low power transistor which operates over a wide temperature range.
- Housed in a [TO-18](#) case.
- Also available in chip form using the 0220 / [0307](#) chip geometry.
- The Min and Max limits shown are per [MIL-PRF-19500/376](#) which Semicoa meets in all cases.



**Maximum Ratings**

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

Rating	Symbol	Rating	Unit
Collector-Emitter Voltage	$V_{CEO}$	60	V
Collector-Base Voltage	$V_{CBO}$	60	V
Emitter-Base Voltage	$V_{EBO}$	6.0	V
Collector Current, Continuous	$I_C$	50	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 $I_C = 10 \mu\text{A}$	$V_{(BR)CBO}$	60	---	V
Collector-Emitter Breakdown Voltage $I_C = 10 \text{mA}$	$V_{(BR)CEO}$	60	---	V
Emitter-Base Breakdown Voltage $I_E = 10 \mu\text{A}$	$V_{(BR)EBO}$	6.0	---	V
Collector-Base Cutoff Current $V_{CB} = 45 \text{V}$	$I_{CBO1}$	---	5	nA
$V_{CB} = 45 \text{V}, T_A = +150^\circ\text{C}$	$I_{CBO2}$	---	10	$\mu\text{A}$
Emitter-Base Cutoff Current $V_{EB} = 5.0 \text{V}$	$I_{EBO}$	---	2	nA
Collector-Emitter Cutoff Current $V_{CE} = 5 \text{V}$	$I_{CEO}$	---	2	nA
$V_{CE} = 45 \text{V}$	$I_{CES}$	---	5	nA

ON Characteristics	Symbol	Min	Max	Unit
<b>DC Current Gain</b>				
$I_C = 1 \mu\text{A}, V_{CE} = 5 \text{V}$	$h_{FE1}$	45	---	---
$I_C = 10 \mu\text{A}, V_{CE} = 5 \text{V}$	$h_{FE2}$	200	500	---
$I_C = 100 \mu\text{A}, V_{CE} = 5 \text{V}$	$h_{FE3}$	225	675	---
$I_C = 500 \mu\text{A}, V_{CE} = 5 \text{V}$	$h_{FE4}$	250	800	---
$I_C = 1 \text{mA}, V_{CE} = 5 \text{V}$	$h_{FE5}$	250	800	---
$I_C = 10 \text{mA}, V_{CE} = 5 \text{V}$ (pulsed)	$h_{FE6}$	225	800	---
$I_C = 10 \mu\text{A}, V_{CE} = 5 \text{V}, T_A = -55^\circ\text{C}$	$h_{FE7}$	35	---	---
<b>Collector-Emitter Saturation Voltage Saturated</b> $I_C = 150 \text{mA}, I_B = 100 \mu\text{A}$	$V_{CE(sat)}$	---	0.3	V dc
<b>Base-Emitter Saturation Voltage Non Saturated</b> $V_{CE} = 5 \text{V}, I_C = 100 \mu\text{A}$	$V_{BE}$	0.5	0.7	V dc

Small Signal Characteristics	Symbol	Min	Max	Unit
<i>Magnitude of Short-Circuit</i>				
<i>Forward Current Transfer Ratio</i>				
$V_{CE} = 5\text{ V}, I_C = 50\text{ }\mu\text{A}, f = 5\text{ MHz}$	$ h_{FE} 1$	3.0	---	---
$V_{CE} = 5\text{ V}, I_C = 500\text{ }\mu\text{A}, f = 30\text{ MHz}$	$ h_{FE} 2$	2.0	7.0	---
<i>Open Circuit Output Admittance</i>				
$V_{CE} = 5\text{ V}, I_C = 1\text{ mA}, f = 1\text{ kHz}$	hoe	---	40	$\mu\text{ohms}$
<i>Open-Circuit, Reverse Voltage Transfer Ratio</i>				
$V_{CE} = 5\text{ V}, I_C = 1\text{ mA}, f = 1\text{ kHz}$	$h_{RE}$	---	$8 \times 10^{-4}$	---
<i>Short-Circuit Input Impedance</i>				
$V_{CE} = 5\text{ V}, I_C = 1\text{ mA}, f = 1\text{ kHz}$	$h_{IE}$	3.5	24	ohms
<i>Short Circuit Forward Current Transfer Ratio</i>				
$V_{CE} = 5\text{ V}, I_C = 1\text{ mA}, f = 1\text{ kHz}$	$h_{FE}$	250	900	---
<i>Open Circuit Output Capacitance</i>				
$V_{CB} = 5\text{ V}, I_E = 0, 100\text{ kHz} < f < 1\text{ MHz}$	$C_{OBO}$	---	5.0	pF
<i>Input Capacitance, Output Open Circuited</i>				
$V_{EB} = 0.5\text{ V}, I_C = 0, 100\text{ kHz} < f < 1\text{ MHz}$	$C_{IBO}$	---	6.0	pF
<i>Noise Figure</i>				
$f = 100\text{ Hz}, V_{CE} = 5\text{ V}, I_C = 10\text{ }\mu\text{A}, R_g = 10\text{ kohm}$	F1	---	7.5	dB
$f = 1\text{ kHz}, V_{CE} = 5\text{ V}, I_C = 10\text{ }\mu\text{A}, R_g = 10\text{ kohm}$	F2	---	3	dB
$f = 10\text{ kHz}, V_{CE} = 5\text{ V}, I_C = 10\text{ }\mu\text{A}, R_g = 10\text{ kohm}$	F3	---	2	dB
$f = 10\text{ Hz to } 15.7\text{ kHz}, V_{CE} = 5\text{ V}, I_C = 10\text{ }\mu\text{A}, R_g = 10\text{ kohm (wideband noise)}$	F4	---	3	dB