

2N2484

NPN SILICON TRANSISTOR



TO-18 CASE



www.centrasemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR 2N2484 type is an NPN silicon transistor designed for low noise amplifier applications.

**MARKING: FULL PART NUMBER**

**MAXIMUM RATINGS:** (T<sub>A</sub>=25°C)

Collector-Base Voltage  
 Collector-Emitter Voltage  
 Emitter-Base Voltage  
 Continuous Collector Current  
 Power Dissipation  
 Operating and Storage Junction Temperature  
 Thermal Resistance

**SYMBOL**

V<sub>CB0</sub> 60  
 V<sub>CEO</sub> 60  
 V<sub>EBO</sub> 6.0  
 I<sub>C</sub> 50  
 P<sub>D</sub> 360  
 T<sub>J</sub>, T<sub>stg</sub> -65 to +200  
 θ<sub>JA</sub> 486

**UNITS**

V  
 V  
 V  
 mA  
 mW  
 °C  
 °C/W

**ELECTRICAL CHARACTERISTICS:** (T<sub>A</sub>=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I <sub>CBO</sub>	V <sub>CB</sub> =45V		10	nA
I <sub>CBO</sub>	V <sub>CB</sub> =45V, T <sub>A</sub> =150°C		10	µA
I <sub>CEO</sub>	V <sub>CE</sub> =5.0V		2.0	nA
I <sub>EBO</sub>	V <sub>EB</sub> =5.0V		10	nA
BV <sub>CB0</sub>	I <sub>C</sub> =10µA	60		V
BV <sub>CEO</sub>	I <sub>C</sub> =10mA	60		V
BV <sub>EBO</sub>	I <sub>E</sub> =10µA	6.0		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =1.0mA, I <sub>B</sub> =100µA		0.35	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =100µA	0.5	0.7	V
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =1.0µA	30		
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =10µA	100	500	
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =10µA, T <sub>A</sub> =-55°C	20		
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =100µA	175		
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =500µA	200		
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =1.0mA	250		
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =10mA		800	
h <sub>fe</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =1.0mA, f=1.0kHz	150	900	
f <sub>T</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =50µA, f=5.0MHz	15		MHz
f <sub>T</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =0.5mA, f=30MHz	60		MHz
h <sub>ie</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =1.0mA, f=1.0kHz	3.5	24	kΩ
h <sub>oe</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =1.0mA, f=1.0kHz		40	µS
h <sub>re</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =1.0mA, f=1.0kHz		800	x10 <sup>-6</sup>
C <sub>ob</sub>	V <sub>CB</sub> =5.0V, I <sub>E</sub> =0, f=140kHz		6.0	pF
C <sub>ib</sub>	V <sub>EB</sub> =0.5V, I <sub>C</sub> =0, f=140kHz		6.0	pF

R1 (30-May 2012)

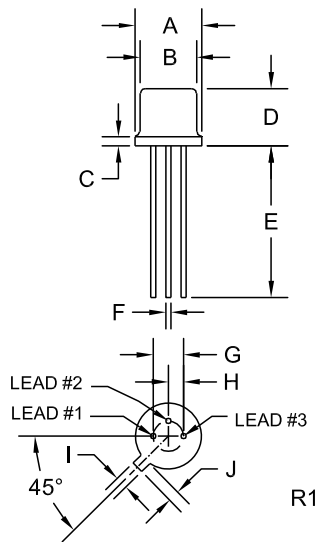
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**ELECTRICAL CHARACTERISTICS - Continued:** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MAX	UNITS
NF	$V_{CE}=5.0\text{V}$ , $I_C=10\mu\text{A}$ , $R_S=10\text{k}\Omega$ $BW=15.7\text{kHz}$ , 3.0dB PTS @ 10Hz, 10kHz	3.0	dB
NF	$V_{CE}=5.0\text{V}$ , $I_C=10\mu\text{A}$ , $R_S=10\text{k}\Omega$ , $f=100\text{Hz}$ , $BW=20\text{Hz}$	10	dB
NF	$V_{CE}=5.0\text{V}$ , $I_C=10\mu\text{A}$ , $R_S=10\text{k}\Omega$ , $f=1.0\text{kHz}$ , $BW=200\text{Hz}$	3.0	dB
NF	$V_{CE}=5.0\text{V}$ , $I_C=10\mu\text{A}$ , $R_S=10\text{k}\Omega$ , $f=10\text{kHz}$ , $BW=2.0\text{kHz}$	2.0	dB

**TO-18 CASE - MECHANICAL OUTLINE**



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.209	0.230	5.31	5.84
B (DIA)	0.178	0.195	4.52	4.95
C	-	0.030	-	0.76
D	0.170	0.210	4.32	5.33
E	0.500	-	12.70	-
F (DIA)	0.016	0.019	0.41	0.48
G (DIA)	0.100		2.54	
H	0.050		1.27	
I	0.036	0.046	0.91	1.17
J	0.028	0.048	0.71	1.22

TO-18 (REV: R1)

**LEAD CODE:**

- 1) Emitter
- 2) Base
- 3) Collector

**MARKING:**  
**FULL PART NUMBER**

R1 (30-May 2012)