

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: ($T_A=25^{\circ}\text{C}$)

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

SYMBOL

V_{CBO} 60
 V_{CEO} 60
 V_{EBO} 6.0
 I_C 50
 P_D 360
 T_J, T_{stg} -65 to +200
 θ_{JA} 486

UNITS

V
V
V
mA
mW
 $^{\circ}\text{C}$
 $^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	$V_{CB}=45\text{V}$		10	nA
I_{CBO}	$V_{CB}=45\text{V}, T_A=150^{\circ}\text{C}$		10	μA
I_{CEO}	$V_{CE}=5.0\text{V}$		2.0	nA
I_{EBO}	$V_{EB}=5.0\text{V}$		10	nA
BV_{CBO}	$I_C=10\mu\text{A}$	60		V
BV_{CEO}	$I_C=10\text{mA}$	60		V
BV_{EBO}	$I_E=10\mu\text{A}$	6.0		V
$V_{CE(SAT)}$	$I_C=1.0\text{mA}, I_B=100\mu\text{A}$		0.35	V
$V_{BE(ON)}$	$V_{CE}=5.0\text{V}, I_C=100\mu\text{A}$	0.5	0.7	V
h_{FE}	$V_{CE}=5.0\text{V}, I_C=1.0\mu\text{A}$	30		
h_{FE}	$V_{CE}=5.0\text{V}, I_C=10\mu\text{A}$	100	500	
h_{FE}	$V_{CE}=5.0\text{V}, I_C=10\mu\text{A}, T_A=-55^{\circ}\text{C}$	20		
h_{FE}	$V_{CE}=5.0\text{V}, I_C=100\mu\text{A}$	175		
h_{FE}	$V_{CE}=5.0\text{V}, I_C=500\mu\text{A}$	200		
h_{FE}	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}$	250		
h_{FE}	$V_{CE}=5.0\text{V}, I_C=10\text{mA}$		800	
h_{fe}	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}, f=1.0\text{kHz}$	150	900	
f_T	$V_{CE}=5.0\text{V}, I_C=50\mu\text{A}, f=5.0\text{MHz}$	15		MHz
f_T	$V_{CE}=5.0\text{V}, I_C=0.5\text{mA}, f=30\text{MHz}$	60		MHz
h_{ie}	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}, f=1.0\text{kHz}$	3.5	24	k Ω
h_{oe}	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}, f=1.0\text{kHz}$		40	μS
h_{re}	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}, f=1.0\text{kHz}$		800	$\times 10^{-6}$
C_{ob}	$V_{CB}=5.0\text{V}, I_E=0, f=140\text{kHz}$		6.0	pF
C_{ib}	$V_{EB}=0.5\text{V}, I_C=0, f=140\text{kHz}$		6.0	pF

R1 (30-May 2012)

2N2484

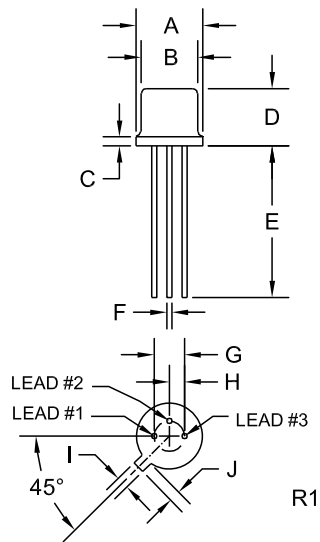
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ELECTRICAL CHARACTERISTICS - Continued: ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

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)

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