



## NPN 2N2484

### SILICON PLANAR EPITAXIAL TRANSISTORS

The 2N2484 are a silicon planar epitaxial NPN transistors mounted in TO-18 metal package. They are intended for use in high-performance, low-noise amplifier circuits from audio to high-frequency.

Compliance to RoHS.

#### ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings	Value	Unit
$V_{CEO}$	Collector-Emitter Voltage	60	V
$V_{CBO}$	Collector-Base Voltage	60	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current	50	mA
$P_D$	Total Power Dissipation	@ $T_{amb} = 25^\circ$	0.36
		@ $T_{case} = 25^\circ$	1.2
		@ $T_{case} < 100^\circ$	0.68
$T_J$	Junction Temperature	200	$^\circ C$
$T_{Stg}$	Storage Temperature range	-65 to +200	$^\circ C$

#### THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
$R_{thJ-a}$	Thermal Resistance, Junction-ambient	486	$^\circ C/W$
$R_{thJ-c}$	Thermal Resistance, Junction-case	146	$^\circ C/W$

#### ELECTRICAL CHARACTERISTICS

TC=25 $^\circ C$  unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Typ	Mx	Unit
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=45 V, I_E=0$	-	-	10	nA
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=45 V, I_E=0, T_J=150^\circ C$	-	-	10	$\mu A$
$I_{EBO}$	Emitter Cutoff Current	$V_{BE}=5.0 V, I_C=0$	-	-	10	nA
$V_{CEO} (*)$	Collector Emitter Breakdown Voltage	$I_C=10 mA, I_B=0$	60	-	-	V
$V_{CBO}$	Collector Base Breakdown Voltage	$I_C=10 \mu A, I_E=0$	60	-	-	V
$V_{EBO}$	Emitter Base Breakdown Voltage	$I_E=10 \mu A, I_C=0$	6	-	-	V

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Symbol	Ratings	Test Condition(s)	Min	Typ	Mx	Unit
$h_{FE} (*)$	DC Current Gain	$I_C=1 \mu A, V_{CE}=5 V$	30	200	-	-
		$I_C=10 \mu A, V_{CE}=5 V$	100	290	500	
		$I_C=100 \mu A, V_{CE}=5 V$	175	375	-	
		$I_C=500 \mu A, V_{CE}=5 V$	200	430	-	
		$I_C=1 mA, V_{CE}=5 V$	250	450	-	
		$I_C=10 mA, V_{CE}=5 V$	-	430	800	
		$I_C=10 \mu A, V_{CE}=5 V$ $T_{amb} = -55^\circ$	20	-	-	
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage	$I_C=1 mA, I_B=0.1 mA$	-	0.2	0.35	V
$V_{BE}$	Base-Emitter Voltage	$I_C=100 \mu A, V_{CE}=5 V$	0.5	0.57	0.7	

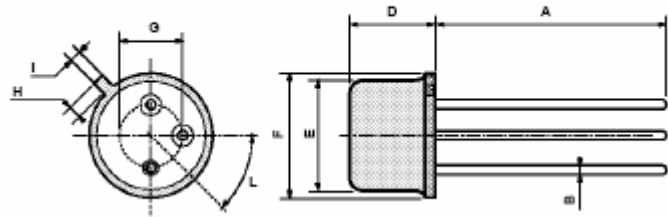
Symbol	Ratings	Test Condition(s)	Min	Typ	Mx	Unit	
$f_T$	Transition frequency	$I_C=50 \mu A, V_{CE}=5 V$ $f=5 MHz$	15	20	-	MHz	
		$I_C=500 \mu A, V_{CE}=5 V$ $f=30 MHz$	60	78	-		
$h_{fe}$	Small signal current gain	$I_C=1 mA, V_{CE}=5.0 V$ $f=1 KHz$	150	400	900	-	
$C_{CBO}$	Collector-Base Capacitance	$I_E=0, V_{CB}=5 V$ $f=1 MHz$	-	3.5	6	pF	
$C_{EBO}$	Emitter-Base Capacitance	$I_C=0, V_{EB}=0.5 V$ $f=1 MHz$	-	3.5	6	pF	
$NF$	Noise figure	$I_C=0$ $V_{CE}=5.0 V$ $R_g=10 k\Omega$	$f=100 Hz$	-	4	10	dB
			$f=1 kHz$	-	1.8	3	
			$f=10 kHz$	-	0.6	2	
			$f=10$ to 10000 Hz	-	1.8	3	

(\*) Pulse conditions :  $t_p < 300 \mu s, \delta = 1\%$

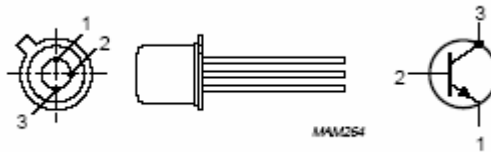
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### MECHANICAL DATA CASE TO-18

DIMENSIONS		
	mm	inches
A	12,7	0,5
B	0,49	0,019
D	5,3	0,208
E	4,9	0,193
F	5,8	0,228
G	2,54	0,1
H	1,2	0,047
I	1,16	0,045
L	45°	45°



Pin 1 :	Emitter
Pin 2 :	Base
Pin 3 :	Collector



*Information furnished is believed to be accurate and reliable. However, CS assumes no responsibility for the consequences of use of such information nor for errors that could appear.*

Data are subject to change without notice.