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°	0.36	Watts
		@ T_{case}= 25°	1.2	
		@ T_{case}<100°	0.68	
T_J	Junction Temperature		200	°C
T_{Stg}	Storage Temperature range		-65 to +200	°C

THERMAL CHARACTERISTICS

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

ELECTRICAL CHARACTERISTICS

TC=25°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°C	-	-	10	µA
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 µA, I_E=0	60	-	-	V
V_{EBO}	Emitter Base Breakdown Voltage	I_E=10 µA, 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 µA, V_{CE} =5 V	30	200	-	-
		I_C=10 µA, V_{CE} =5 V	100	290	500	
		I_C=100 µA, V_{CE} =5 V	175	375	-	
		I_C=500 µA, V_{CE} =5 V	200	430	-	
		I_C=1mA, V_{CE} =5 V	250	450	-	
		I_C=10 mA, V_{CE} =5 V	-	430	800	
		I_C=10 µA, V_{CE} =5 V T_{amb} = -55°	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 µA, 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 µA, V_{CE}= 5 V f= 5 MHz		15	20	-	MHz
		I_C=500 µA, 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 = 1MHz		-	3.5	6	pF
C_{EBO}	Emitter-Base Capacitance	I_C= 0 ,V_{EB}=0.5 V f = 1MHz		-	3.5	6	pF
NF	Noise figure	I_C= 0 V_{CE}=5.0 V R_g = 10 kΩ	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 : tp < 300 µs, δ =1%

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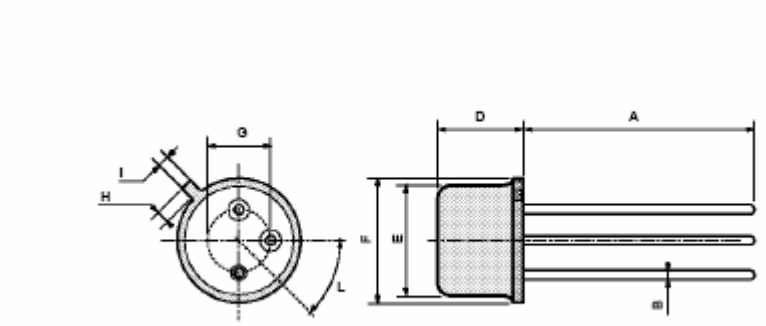
MECHANICAL DATA CASE TO-18

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