BD410

NPN EPITAXILA SILICON POWER TRANSISTORS

They are silicon epitaxial planar NPN power transistors mounted in a TO-126 plastic package.
AF-amplifier for high supply voltage
They are intended for control circuit, vertical output stages in TVsets, and general purpose applications.
Compliance to RoHS.

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value	Unit
V_{CBO}	Collector-Base Voltage		500	V
V_{CEO}	Collector-Emitter Voltage		325	V
V_{EBO}	Emitter-Base Voltage		5	V
I_C	Collector Current		1	A
I_{CM}	Collector Peak Current		1.5	A
P_T	Total Power Dissipation	T_a =25℃	1.25	W
		T_c =25℃	20	
t_J	Junction Temperature		-55 to +125	℃
t_S	Storage Temperature range		-55 to +125	
t_L	Lead Temperature 1.6 mm From Case For 10 Secondes		260	

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit
V_{CEO}	Collector-Emitter Breakdown Voltage (*)	I_C= 10 mA, I_B= 0	325	-	-	V
V_{CBO}	Collector-Base Breakdown Voltage	I_C= 0.5 mA, I_E= 0	500	-	-	V
V_{EBO}	Collector-Base Breakdown Voltage	I_E= 50 µA, I_C= 0	5	-	-	V
I_{CES}	Collector Cutoff Current	V_{CE} = 300 V, I_B= 0	-	-	100	µA
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	I_C= 100 mA, I_B= 10 mA	-	-	0.5	V
V_{BE}	Base-Emitter Voltage (*)	I_C= 100 mA, I_B= 10 mA	-	-	1.5	V
h_{FE}	DC Current Gain (*)	I_C= 5 mA, V_{CE}= 10 V	25	-	-	-
		I_C= 50 mA, V_{CE}= 10 V	30	-	240	
		I_C= 100 mA, V_{CE}= 10 V	20	-	-	

SWITCHING TIMES.

Symbol	Ratings	Test Condition(s)	Min	Typ	Mx	Unit
C_{obo}	Output Capacitance	I_E= 0, V_{CB}= 10 V, f= 1 MHz	-	5.5	-	pF
C_{ibo}	Input Capacitance	I_E= 0, V_{CB}= 0.5 V, f= 1 MHz	-	90	-	

(*) These parameters must be measured using pulse techniques, t_p 300 µs, Duty Cycle ∠ 2%

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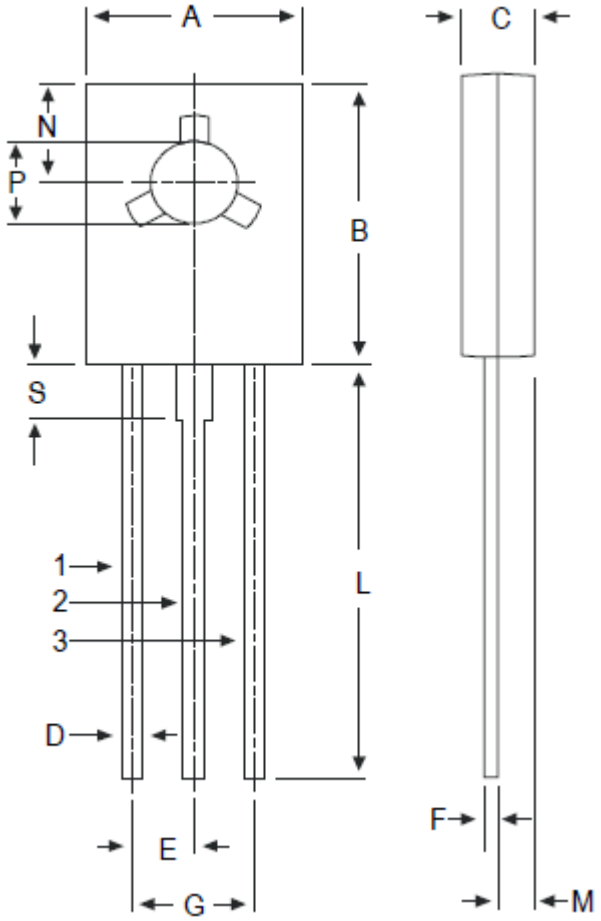
MECHANICAL DATA CASE TO-126

	DIMENSIONS	
	min	max
A	7.4	7.8
B	10.5	10.8
C	2.4	2.7
D	0.7	0.9
E	2.25 typ.	
F	0.49	0.75
G	4.4 typ.	
L	15.7 typ.	
M	1.27 typ.	
N	3.75 typ.	
P	3.0	3.2
S	2.54 typ.	



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

Revised August 2012