NPN BU911

HIGH VOLTAGE POWER DARLINGTON

The BU911 are high voltage, silicon NPN transistors in monolithic Darlington mounted in Jedec TO-220 plastic package.
They are designed for applications such as electronic ignition, DC and AD motor controls, solenoid drivers, etc.
Compliance to RoHS.

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value	Unit
V_{CEO}	Collector-Emitter Voltage		400	V
V_{CES}	Collector-Emitter Voltage	Vbe=0	450	V
V_{EBO}	Emitter-Base Voltage		5	V
I_C	Collector Current		6	A
I_{CM}	Collector Current Peak		10	A
I_B	Base Current		1	A
P_D	Total Device Dissipation	@ TC = 25°	60	W
T_J	Junction Temperature		150	°C
T_{Stg}	Storage Temperature Range		-65 to +150	°C

THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
RthJ-c	Thermal Resistance, Junction to case	2.08	°C/W

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ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit
I_{CEO}	Collector Cutoff Current	V_{CE} = 400V, I_B = 0	-	-	1	mA
I_{CES}	Collector Cutoff Current	V_{CE} = 400V, V_{BE} = 0	-	-	1	mA
		V_{CE} = 400V, V_{BE} = 0 T_C = 125°C	-	-	5	
I_{EBO}	Emitter Cutoff Current	V_{BE} = 5 V, I_C = 0	-	-	5	mA
V_{CEO}	Collector-Emitter Sustaining Voltage	I_C = 100 mA, I_B = 0	400	-	-	V
V_F	Didode Forward Voltage	I_F =4 A	-	-	2.5	V
$V_{CE(SAT)}$	Collector-Emitter Saturation Voltage (*)	I_C =2.5 A, I_B =50 mA	-	-	1.8	V
		I_C =4 A, I_B =200 mA	-	-	1.8	
$V_{BE(SAT)}$	Base-Emitter Saturation Voltage (*)	I_C =2.5 A, I_B =50 mA	-	-	2.2	V
		I_C =4 A, I_B =200 mA	-	-	2.5	

(*) Pulse conditions : tp < 300 µs, duty cycle =1.5%

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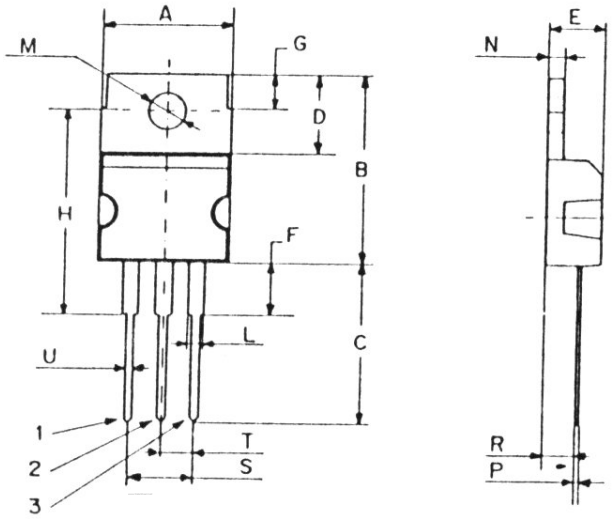
MECHANICAL DATA CASE TO-220

DIMENSIONS (mm)		
	Min.	Max.
A	9,90	10,30
B	15,65	15,90
C	13,20	13,40
D	6,45	6,65
E	4,30	4,50
F	2,70	3,15
G	2,60	3,00
H	15,75	17.15
L	1,15	1,40
M	3,50	3,70
N	-	1,37
P	0,46	0,55
R	2,50	2,70
S	4,98	5,08
T	2.49	2.54
U	0,70	0,90



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

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