

Summary of common T0-92 and similar sized transistors

List date – May 4th 2011

Conducted by Slider2732

Test conditions -

'Walgreen' tower of approx 400 turns (Walgreen/Walmart orange pills bottle).

Slayer exciter circuit.

2 turn close coupled primary (adjustable height, to ascertain best results from each transistor).

Adjustable pot of 250K size replaces resistor.

3.7V Nokia phone charger, 340mA rated maximum output.

All items static except the 3 transistor connection wires.

? denotes no found datasheet.

All transistors salvaged from used equipment - use only as a guide.

19C/66F ambient room temperature.

Key for PNP (NPN list to be updated to match):

T - Transistor numbering as commonly appears written on the casing

Pin - Transistor connections left to right, looking at the flat front of a T0-92 case

CC - Collector Current

Gain - Maximum quoted DC current gain

Freq - Frequency of switching transistions

Type - Case designated rating of the particular transistor tested

Plasma - Air indicates free running into surrounding air. High, Medium, Tiny relate to assisted with a screwdriver to draw the plasma

Bulb - Sections of the twirl shaped 13W 200mA Energy Saver, then to fully lit with best being 50% room bright compared to mains electricity powered

Neon - A neon mains voltage bulb, on a dipole arrangement, held in the hand above the tower

LED - Blue LED as often seen in videos, field extending up from tower

Notes - Observations made during testing

Strongest to weakest NPN

T.....Pin.CC....Plasma.....LED Field..Bulb....Notes

D471	ECB	1A	Strong air	12"		Strongest by 10% in all regards - larger than T0-92
2N7000	SGD	400mA	Strong air	Large	Bright	MOSFET 2A pulsed, strong neon
C3242A	ECB	2A	Strong air	Large	Bright	Bulb increases with positioning
KN2222A	EBC	600mA	Strong air	Large	Bright	Wide coil vertical position possible
C3198	ECB	150mA	Strong air	Large	Bright	Bulb increases with positioning
C1213	ECB	500mA	Air	Large	Bright	C designated
MPSA06	EBC	500mA	Air	Large	Full	
C2120	ECB	800mA	Yes	8"/strong	Full	
C536N	ECB	150mA	Yes	Large	Full	
G3195	ECB	?	Yes	Large	Full	
D667	ECB	1A	Yes	Large	Full	C designated - taller case
30611	EBC	?	Yes	Large	95%	
H945	ECB	150mA	Tiny	Good (6")	90%	P designated. Tiny plasma with body capacitance
30613	EBC	?	Tiny	Good	90%	
C1815	ECB	100mA	None	V Good	90%	
2N3904	EBC	100mA	None	Good	90%	
C9014	EBC	100mA	None	Good	90%	C designated
BC547	CBE	100mA	None	Medium	60%	B designated. Bright LED field near to tower
30612	EBC	?	None	Good	60%	
C2878	ECB	300mA	None	Good	30%	A designated
C1854	ECB	?	None	Good	30%	
MPSA44	ECB	300mA	None	Low	30%	Good neon
C945	ECB	100mA	None	Good	25%	Very low neon
C2229	ECB	20mA	None	Good	20%	Very low neon, good LED field for other traits
KSP13	EBC	500mA	None	Low	None	Very weak, partial neon against tower side
S9018	EBC	50mA	None	Low	None	Very weak, partial neon, low LED field
MPSA13	EBC	500mA	None	2"	None	All but dead

Strongest to weakest PNP

T.....Pin..CC....Gain..Freq....Type..Plasma.....Bulb..Neon..LED...Notes

A966	ECB	1.5A	320	120MHz		Air V strong	Full	5.5"	12"	Taller case
KN2907A	EBC	600mA	300	200MHz		Air V strong	Full	6"	12"	Best at low coil height
B810	ECB	700mA	400	160MHz		Air V strong	Full	5"	11.5"	Dinky size !
B764	ECB	1A	320	150MHz	(F)	Air V strong	Full	4.5"	11"	Physically much larger casing
B647A	ECB	1A	320	140MHz	(C)	Air V strong	Full	4.5"	10.5"	Taller case
A720	ECB	500mA	340	200MHz	(R)	Air strong	Full	5"	12"	Plasma finicky about coil height
B740	ECB	1A	320	150MHz	(B)	Air strong	Full	4.5"	9.5"	Taller case (much better at 6V)
2N4403	EBC	600mA	300	200MHz		Air strong	Full	3.5"	11"	
A733	ECB	100mA	600	180MHz	(P)	Medium	Full	4"	11"	
A1015	ECB	150mA	400	80MHz	(GR)	Tiny	100%	3.5"	11"	
33010	EBC	?				Tiny	90%	3.5"	10"	No datasheet
A1266	ECB	150mA	400	80MHz	(GR)	Tiny	85%	3.5"	9"	
2N3906	EBC	200mA	300	250MHz		Tiny	80%	3.5"	9"	

Extras - larger than T0-92

A1357	ECB	5A	320	170MHz		Air strong	Full	5"	11.5"	Larger holed case
A1837	BCE	1A	320	70MHz		Medium	Full	3"	11"	Larger holed case
A1941	BCE	1A	160	30MHz		None	10%	3"	6.5"	Comparatively huge
BDX54B	BCE	8A	750	?		None	None	None	1.5"	Larger holed case - from 1979

No response

2N5400	EBC	600mA	180	400MHz		nothing, tried 2 of them
A1145	ECB	50mA	240	200MHz	(Y)	nothing, tried 2 of them
A970	ECB	100mA	700	100MHz		nothing, tried 2 of them

Notes: