

Q17 Power Transistors Selection Table

Pair of transistors for the driver stage.

Minimum Vds = 150V, same Vgs(th) range (4V)

Q7 v1.3.4

Minimum default config									Calculated (RCiss filter)			Final resistor values				
DEFAULT		Status	Parts	Gfs Sie	Ciss pF	R7	R8	Freq MHz	R7	R8	Freq MHz	R7	R8	Freq MHz	OK	Comment
Q5	P	EOL	FQP3P20	1.23	190	100		8,38	104,7		8	100		8	Yes	Original config
Q6	N	EOL	FQP3N30	1.75	75		100	21,22		265,25	8		270	8	Yes	
LIVE		Status	Parts	Gfs Sie	Ciss pF	R7	R8	Freq MHz	R7	R8	Freq MHz	R7	R8	Freq MHz	OK	Comment
Q5	P		FQPF7P20	3.5	590	100		2,70	122,61		2,2	120		2,2	Yes	Small oscillation
Q6	N	EOL	2SK3564	2.6	700		100	2,27		103,34	2,2		100	2,2	Yes	at clip (Q6).
TESTED		Status	Parts	Gfs Sie	Ciss pF	R7	R8	Freq MHz	R7	R8	Freq MHz	R7	R8	Freq MHz	OK	Comment
Q5	P		FQPF7P20	3.5	590	100		2,70	99,9		2,7	100		2,7	Yes	overshoot with
Q6	N		FQPF3N80C	3	543		100	2,93		108,55	2,7		110	2,7	Yes	IXTH48P20P
NOT TESTED		Status	Parts	Gfs Sie	Ciss pF	R7	R8	Freq MHz	R7	R8	Freq MHz	R7	R8	Freq MHz	OK	Comment
Q5	P		IRF9610	0.9	170	100		9,36	104,02		9	100		9		
Q6	N		IRF610	0.8	140		100	11,36		126,31	9		120	9		

Pair of transistors for the output stage.

Minimum Vds = 150V, same Vgs(th) range (4V)

DEFAULT		Status	Parts	Gfs Sie	Ciss pF	R14	R15	Freq KHz	R14	R15	Freq KHz	R14	R15	Freq KHz	OK	Comment
Q15	N		FQA46N15	36	2500	330		192,92	335,06		190	340		190	Yes	Original config
Q16	P	n.a	FQA36P15	19.5	2550		330	189,13		328,49	190		330	190	Yes	
LIVE		Status	Parts	Gfs Sie	Ciss pF	R14	R15	Freq KHz	R14	R15	Freq KHz	R14	R15	Freq KHz	OK	Comment
Q15	N		FQA46N15	36	2500	330		192,92	335,06		190	330		190	Yes	Overshoot left
Q16	P		IXTH48P20P	32	5400		330	89,31		155,12	190		150	190	Yes	with new values
TO TEST		Status	Parts	Gfs Sie	Ciss pF	R14	R15	Freq KHz	R14	R15	Freq KHz	R14	R15	Freq KHz	OK	Comment
Q15	N		FQA46N15	36	2500	330		192,92	335,06		190	330		190		
Q16	P	n.a	IXTQ36P15P	19	3100		330	155,57		270,21	190		270	190		Mouser 31/7
TO TEST		Status	Parts	Gfs Sie	Ciss pF	R14	R15	Freq KHz	R14	R15	Freq KHz	R14	R15	Freq KHz	OK	Comment
Q15	N		IXTQ50N20P	23	2720	330		177,31	307,96		190	300		190		
Q16	P	n.a	IXTQ36P15P	19	3100		330	155,57		270,21	190		270	190		Mouser 31/7
ON TEST		Status	Parts	Gfs Sie	Ciss pF	R14	R15	Freq KHz	R14	R15	Freq KHz	R14	R15	Freq KHz	OK	Comment
Q15	N		FQA46N15	36	2500	330		192,92	335,06		190	330		190		Good but
Q16	P		IXTQ52P10P	20	2845		330	169,52		294,43	190		300	190		48v max
ON TEST		Status	Parts	Gfs Sie	Ciss pF	R14	R15	Freq KHz	R14	R15	Freq KHz	R14	R15	Freq KHz	OK	Comment
Q15	N		IXTQ50N20P	23	2720	330		177,31	307,96		190	300		190		Good but
Q16	P		IXTQ52P10P	20	2845		330	169,52		294,43	190		300	190		48v max
NOT TESTED		Status	Parts	Gfs Sie	Ciss pF	R14	R15	Freq KHz	R14	R15	Freq KHz	R14	R15	Freq KHz	OK	Comment
Q15	N		IXFH50N85X	32	4480	330		107,65	186,97		190	190		190		
Q16	P		IXTH48P20P	32	5400		330	89,31		155,12	190		150	190		
NOT TESTED		Status	Parts	Gfs Sie	Ciss pF	R14	R15	Freq KHz	R14	R15	Freq KHz	R14	R15	Freq KHz	OK	Comment
Q15	N		IRFP240	6.9	1300	330		370,99	644,35		190	649		190		
Q16	P		IRFP9240	9.4	1200		330	401,90		698,04	190		698	190		
SIM NOT WORKING		Status	Parts	Gfs Sie	Ciss pF	R14	R15	Freq KHz	R14	R15	Freq KHz	R14	R15	Freq KHz	OK	Comment
Q15	N		ECX10N20	1	500	330		964,57	1675,31		190	1650		190		
Q16	P		ECX10P20	1.5	500		330	964,57		1675,31	190		1650	190		
SIM NOT WORKING		Status	Parts	Gfs Sie	Ciss pF	R14	R15	Freq KHz	R14	R15	Freq KHz	R14	R15	Freq KHz	OK	Comment
Q15	N		ECW20N20	8	900	330		535,87	930,73		190	910		190		
Q16	P		ECW20P20	3	1850		330	267,93		452,78	190		442	190		

Pair of transistors for op-amp power supply

Minimum Vds = 60V, same Vgs(th) range (4V)

DEFAULT		Status	Parts	Gfs Sie	Ciss pF	R40	R41	Freq MHz	R40	R41	Freq MHz	R40	R41	Freq MHz	OK	Comment
Q1	N		IRF610	0.8	140	100		11,36	126,31		9	120		9		
Q4	P		IRF9610	0.9	170		100	9,36		104,02	9		100	9		