Q17-Mini 3.0 Power Transistors Selection Table

Pair of transistors for the driver stage.

						(05)						Pair of transis	tors fo	r the drive	r stage.							
	Minimum Vds =	150V, same V			efault confi					Casu	lated (RC	icc filtor\		Einal ra	cictor val	ues (scope)		1	1		Q7 v1.4.2	1
	DEFAULT	Status	Parts			Ciss nF R	7	R8	Frea MHz	R7	R8	Frea MHz		R7	RS	Frea MHz				ОК	Comment	
Config D1		P EOL	FOP3P20	Og IIC	1 22	190	100	NO	8 38	104.7	No	Pred Willz		100	No	Preq IVIII2						1
	06	N EOL	FOP3N30	7	1.75	75	100	100	21,22	104,7	265,2	5 8		100	120) 8				Yes	Original config	
																						•
	TESTED OK	Status	Parts	Qg nC	Gfs Sie	Ciss pF R	7	R8	Freq MHz	R7	R8	Freq MHz		R7	R8	Freq MHz				OK	Comment	
Config D2	Q5	P	FQPF7P20	25	3.5	770	100		2,06	93,95		2,2		100		2,2				Yes		
	Q6	N EOL	2SK3564	17	2.6	700		100	2,27		103,3	4 2,2			100	2,2				163		
										,							•					7
6	TESTED	Status			Gfs Sie			R8	Freq MHz	R7	R8	Freq MHz		R7	R8	Freq MHz				OK	Comment	_
Config D3		P	FQPF7P20	25	3.5	770	100	100	2,06	93,95	400.5	5 2,2	1	100	400	2,2				Yes	0	4
	Q6	N	FQPF3N80C	16.5	- 3	705		100	2,25		108,5	5 2,2			100	2,2			l l		Overshoot with config S2.	J
	CANDIDATE	Status	Parts	Og nC	Gfs Sie	Ciss pF R	17	R8	Freq MHz	R7	R8	Freq MHz		R7	R8	Freq MHz	1		1	ОК	Comment	1
	Q5	P	IRF9610	11		170	100		9,36	98,54	110	9,5		11.7	NO	i icq ivii iz				OK	Comment	1
	Q6	N	IRF610	8.2		140		100			119,6											1
									, , , , ,	-1												
	CANDIDATE	Status	Parts	Qg nC	Gfs Sie	Ciss pF R	7	R8	Freq MHz	R7	R8	Freq MHz		R7	R8	Freq MHz				ОК	Comment	1
	Q5	Р	IRFI9620G	15		340	100		4,68	99,59		4,7	•									
	Q6	N	IRFI620G	14	1.5	260		100	6,12		130,2	4 4,7										
	Pair of transistors for the output stage. Minimum Vds = 150V, same Vgs(th) range (4V), close transductance (Gfs) and Qg.																					
	Minimum Vds =	150V, same V	gs(th) range (4					R15	Frea KHz	R14	R15	Frea KHz		R14	R15	Freq KHz	R10-R13 (R)	THD %	SNR -dBuA	ОК	Comment	Subjective sound review
Config S1		Status	FOMEN15	Ug nC	GTS SIE	2500	220	K15	192.92	335.06	K15	Freq KHZ		R14	K15	Freq KHZ		0.011	90.9	OK	Comment	Subjective sound review Good sound.
Coming 31	Q16	P n.a	FQA36P15	105	19.5	2550	330	330	189.13	333,00	328,4	9 190		330	330	190	9.1	0,011	90,9	Yes	Original config	Well balanced sound.
L	QIO	1 11.0	1 QA301 13	103	13.3	2550		330	105,15		320,4	3			330	150						Wen balancea sound.
	TESTED	Status	Parts	Og nC	Gfs Sie	Ciss pF R	14	R15	Freg KHz	R14	R15	Freg KHz		R14	R15	Freg KHz	R10-R13 (R)	THD %	SNR -dBuA	ОК	Comment	Subjective sound review
Config S2		N	FQA46N15	110	36	2500	330		192,92	335,06		190)	330		190	` '	0,017	88,2		Q14=3.6V, Q16=3.8V - Bad spectrum.	Good sound.
	Q16	P	IXTH48P20P	103	32	5400		330	89,31		155,1	2 190)		150	190	9.1			No	With R10/R13=8R2 consume 400mA.	Low frequency drier than S5.
	TO TEST	Status			Gfs Sie	Ciss pF R	14	R15	Freq KHz	R14	R15	Freq KHz		R14	R15	Freq KHz	R10-R13 (R)	THD %	SNR -dBuA	OK	Comment	Subjective sound review
Config S3		N	IXTQ50N20P	70	23	2720	330		177,31	307,96		190					9.1				48v max.	
	Q16	P	IXTQ52P10P	60	20	2845		330	169,52		294,4	3 190										
	TECTED	Chahua	Donto	00	Cf+ Ci+	C: D	11.1	D1F	Face Kills	D14	D15	From KIII-	1	D14	D1F	Fran Killa	D10 D12 (D)	TUD 0/	CNID dDA	OV	Comment	Cubinstina annual anniana
Config S4	TESTED Q15	Status	Parts IXTQ36N30P	70	Gfs Sie 0	2250 R	330	R15	214,35	R14 372,29	R15	Freq KHz		R14 374	R15	Freq KHz 190	R10-R13 (R)	THD % 0,022	SNR -dBuA 87.2 dB	OK	Comment Q14=3.6V, Q16=3.8V	Subjective sound review Good sound.
Coming 34	Q16	D	IXTQ36P15P	55	19	3100	330	330	155,57	372,23	270,2			3/4	270	190	9.1	0,022	67.2 UD	No	With R10/R13=9R1 ou 8R2 - Bad spectrum.	Low frequency less controlled than S5.
	QIO	1	IX1Q301 131	33	15	3100		330	133,37		210,2	130	1	l .	270	150	1	L	1		With Kity Kis-Ski od okz Bud spectrum.	Low requertey ress controlled than 55.
	TESTED OK	Status	Parts	Qg nC	Gfs Sie (Ciss pF R	14	R15	Freq KHz	R14	R15	Freq KHz		R14	R15	Freq KHz	R10-R13 (R)	THD %	SNR -dBuA	OK	Comment	Subjective sound review
Config S5	Q15	N	FQA46N15	110	36	2500	330		192,92	335,06		190		330		190	8.2	0,011	91,1	Yes	Q15/Q16 well balanced (3.6V).	Good sound.
	Q16	P	IXTQ36P15P	55	19	3100		330	155,57		270,2	1 190			330	285	0.2			res	With R10/R13=8R2. Good spectrum.	Well balanced sound.
																					·	-
	CANDIDATE	Status				Ciss pF R		R15	Freq KHz		R15	Freq KHz		R14	R15	Freq KHz	R10-R13 (R)	THD %	SNR -dBuA	OK	Comment	-
	Q15	N	IXTQ50N20P	70	23	2720	330		177,31	307,96		190					9.1					_
	Q16	P	IXTQ36P15P	55	19	3100		330	155,57		270,2	1 190)									J
	CANDIDATE	Status	Darte	Og nC	Gfc Sig	Ciss pF R	111	R15	Freq KHz	R14	R15	Freq KHz		R14	R15	Freq KHz	P10 P12 (P)	THD %	SNR -dBuA	OK	Comment	1
	Q15	N	IXFH50N85X	152	32	4480	330		107,65	186,97	KIJ	190		K14	KIJ	FIEG KIIZ		1110 /6	SINK -UDUA	OK	Comment	1
	Q16	P	IXTH48P20P	103		5400	550	330	89,31	100,57	155,1						9.1		İ			1
																	•					_
	CANDIDATE	Status	Parts	Qg nC	Gfs Sie	Ciss pF R	14	R15	Freq KHz	R14	R15	Freq KHz		R14	R15	Freq KHz	R10-R13 (R)	THD %	SNR -dBuA	ОК	Comment	
	Q15	N	IRFP240	70		1300	330		370,99	644,35		190					9.1					
	Q16	Р	IRFP9240	44	9.4	1200		330	401,90		698,0	4 190					J.1					J
			1	1= -	·							I=	, ,						·		Ia .	1
	SIM NOT WORK			Qg nC	Gts Sie (Ciss pF R		R15	Freq KHz		R15	Freq KHz		R14	R15	Freq KHz	R10-R13 (R)	THD %	SNR -dBuA	OK	Comment	-
	Q15 Q16	N P	ECX10N20	-	1	500 500	330		964,57	1675,31	1675.3	190				1	9.1	<u> </u>				4
	Q10		ECX10P20	1	1.5	500		330	964,57	1	1675,3	1 190	'1	l		1	ı	1	1		I	J
	SIM NOT WORK	ING Status	Parts	Og nC	Gfs Sio	Ciss pF R	114	R15	Freq KHz	R14	R15	Freg KHz		R14	R15	Freg KHz	R10-R13 (R)	THD ≪	SNR -dRuA	OK	Comment	1
	Q15	N Status	ECW20N20	UE IIC	8 R	900	330		535,87	930,73	117	190		11.14	1113	TIEY ARZ	` '	1110 76	JIN -UDUA	OK.	Comment	1
	Q16	P	ECW20P20		3	1850	330	330	267,93	200,75	452,7						9.1					1
											,				1		•				1	
											Pa	ir of transisto	rs for o	p-amp pov	ver supply							
	Minimum Vds =																					-
Config A1	DEFAULT	Status	Parts	Qg nC	Gfs Sie	Ciss pF R	40	R41	Freq MHz	R40	R41	Freq MHz		R40	R41	Freq MHz	Freq MHz			OK	Comment	
I ('Ontig Δ1	(1)1	N	HIDEG10		0.0	1/10	100		11 26	126 21	1	0		120		0	0					

	DEFAULT		Status	Parts	Qg nC	Gfs Sie	Ciss pF	R40	R41	Freq MHz	R40	R41	Freq MHz	R40	R41	Freq MHz	Freq MHz		OK	Comment	
Config A1	Q1	N		IRF610		0.8	140	100		11,36	126,31		9	120		9	9			Original config	
	Q4	Р		IRF9610		0.9	170		100	9,36		104,02	9		100	9	9			Original config	