Q17-Mini 3.0 Power Transistors Selection Table

Pair of transistors for the driver stage.

													Pair of transis	tors for the	driver	stage.							
	Minimum Vds =	150V, same V					5)				1	1.1.1/00	610					1				Q7 v1.4.1	<u> </u>
	DEFAULT	Status	Parts	Og nC		Ciss pF	D.7	D.O.	Frea MHz	_	Caci	lated (RC	Frea MHz	P.7	inai resi	istor vail	rea MHz				ОК	Comment	
Config D1	DEFAULI	P EOL	FORSES	Ug nc	4 22	CISS pr	K/	100	Freq IVIHZ	10	104.7	Kδ	Freq IVIHZ	K/	100	18	Freq IVIHZ				OK	Comment	
Colling DI	Q5	N EOL	FQP3P20 FQP3N30	7	1.23	19	0]	100	.00 21,2	12	104,7	265.2	5 5 0		100	120	3	3			Yes	Original config	
	Qb	IN EOL	FUFSINSU	/	1./5	/	3	1	.00 21,2			205,2	0			120							
	TESTED OK	Status	Parts	Og nC	Gfs Sie	Ciss pF	R7	DQ	Freq MHz		D7	DQ	Freq MHz	D7	ь	90	Frea MHz				ОК	Comment	
Config D2	OF	D	EODE7020	25	2.5	77	0 1	100	2.0	16	02.05	No	2.2	K/	100	10	2.2	,			OK	Comment	
cog 2 2	06	N EOL	25K3564	17	2.6	70	0	1	00 2.2	17	33,33	103.3	4 2.2		100	100	2,2)			Yes		
	Qu	IN LOC	251(5504	1,	2.0	, ,,	o _l		2,2	.,		103,3	- 2,2			100	2,2	-1					_
	TESTED	Status	Parts	Qg nC	Gfs Sie	Ciss pF	R7	R8	Freq MHz	1	R7	R8	Freq MHz	R7	R	R8	Freq MHz				ОК	Comment	7
Config D3	Q5	Р	FQPF7P20	25	3.5	77	0 1	100	2,0	06	93,95		2,2		100		2,2	2					
	Q6	N	FQPF3N80C	16.5	3	70	5	1	.00 2,2	25		108,5	5 2,2			100	2,2	2			Yes	Overshoot with config S2.	
									•				•					•					=
	CANDIDATE	Status	Parts	Qg nC	Gfs Sie	Ciss pF	R7	R8	Freq MHz		R7	R8	Freq MHz	R7	R	R8	Freq MHz				ОК	Comment	
	Q5	P	IRF9610	11	0.9	17	0 1	100	9,3	16	98,54		9,5										
	Q6	N	IRF610	8.2	0.8	14	0	1	.00 11,3	16		119,6	6 9,5										
																							_
	CANDIDATE	Status				Ciss pF		R8	Freq MHz		R7	R8	Freq MHz	R7	R	R8	Freq MHz				ОК	Comment	
	Q5	P	IRFI9620G	15		34		100	4,6		99,59		4,7										
	Q6	N	IRFI620G	14	1.5	26	0	1	.00 6,1	.2		130,2	4 4,7										
Date of translations for the author store																							
Pair of transistors for the output stage. Minimum Vds = 150V, same Vgs(th) range (4V), close transductance (Gfs) and Qg.																							
	DEFAULT	Status		Og nC		Ciss pF	R14	R15	Freg KHz		R14	R15	Freq KHz	R14	R	R15	Freg KHz	R10-R13 (R)	THD %	SNR -dBuA	QK	Comment	Subjective sound review
Config S1	Q15	N	FQA46N15	110	36	250	0 3	330	192,9)2	335,06		190		330		190)	0,011	90,9			Good sound.
•	Q16	P n.a	FQA36P15	105	19.5	255	0	3	30 189,1	.3		328,4	9 190			330	190	9.1			Yes	Original config	Well balanced sound.
	TESTED	Status	Parts	Qg nC	Gfs Sie	Ciss pF	R14	R15	Freq KHz		R14	R15	Freq KHz	R14	R	R15	Freq KHz	R10-R13 (R)	THD %	SNR -dBuA	ОК	Comment	Subjective sound review
Config S2	Q15	N	FQA46N15	110	36	250	0 3	330	192,9	92	335,06		190		330		190	9.1	0,017	88,2	No	Q14=3.6V, Q16=3.8V - Bad spectrum.	Good sound.
	Q16	P	IXTH48P20P	103	32	540	0	3	30 89,3	1		155,1	2 190			150	190	9.1			INO	With R10/R13=8R2 consume 400mA.	Low frequency drier than \$5.
	TO TEST	Status	Parts	Qg nC	Gfs Sie	Ciss pF	R14	R15	Freq KHz		R14	R15	Freq KHz	R14	R	R15	Freq KHz	R10-R13 (R)	THD %	SNR -dBuA	OK	Comment	Subjective sound review
Config S3	Q15	N	IXTQ50N20P	70	23	272		330	177,3	1	307,96		190					9.1			Yes	48v max.	
	Q16	P	IXTQ52P10P	60	20	284	5	3	30 169,5	52		294,4	3 190					3.1					
		1 1	1			T	1	1						1 1								Ta .	In the state of th
0	TESTED	Status			Gfs Sie	Ciss pF	R14	R15	Freq KHz	_	R14	R15	Freq KHz	R14	_	R15	Freq KHz	R10-R13 (R)	THD %	SNR -dBuA	OK	Comment	Subjective sound review
Config S4	Q15 Q16	N P	IXTQ36N30P IXTQ36P15P	70 55	22	225	_	330	214,3 30 155,5		372,29	270,2	190		374	270	190	9.1	0,022	87.2 dB	No	Q14=3.6V, Q16=3.8V With R10/R13=9R1 ou 8R2 - Bad spectrum.	Good sound.
	Q16	P	IXI Q36P15P	55	19	310	U	3	155,5	07		270,2	190			2/(190)				With R10/R13=9R1 ou 8R2 - Bad spectrum.	Low frequency less controlled than S5.
	TESTED OK	Status	Parts	Og nC	Gfs Sie	Ciss pF	R14	R15	Frea KHz		R14	R15	Frea KHz	R14	R	R15	Frea KHz	R10-R13 (R)	THD %	SNR -dBuA	OK	Comment	Subjective sound review
Config S5	015	N	FOA46N15	110	36	250	0 3	330	192.9	12	335.06		190		330		190	1	0.011	91,1		015/016 well balanced (3.6V).	Good sound.
	Q16	P	IXTQ36P15P	55	19	310	0	3	30 155.5	7	555,00	270.2	1 190		550	330	285	8.2	0,011	31,1	Yes	With R10/R13=8R2, Good spectrum.	Well balanced sound.
								1					•							1			
	CANDIDATE	Status	Parts	Qg nC	Gfs Sie	Ciss pF	R14	R15	Freq KHz		R14	R15	Freq KHz	R14	R	R15	Freq KHz	R10-R13 (R)	THD %	SNR -dBuA	ОК	Comment	
	Q15	N	IXTQ50N20P	70				330	177,3		307,96		190					9.1					
	Q16	P	IXTQ36P15P	55	19	310	0	3	30 155,5	57	<u> </u>	270,2	1 190					5.1					_
	r		1-	-	1	1		_					1_					1			-	T-	٦
	CANDIDATE	Status				Ciss pF		R15	Freq KHz	_	R14	R15	Freq KHz	R14	R	R15	Freq KHz	R10-R13 (R)	THD %	SNR -dBuA	ОК	Comment	
	Q15	N	IXFH50N85X	152				330	107,6		186,97		190					9.1					
	Q16	Р	IXTH48P20P	103	32	540	U	3	30 89,3	31		155,1	2 190					1					<u></u>
	CANDIDATE	Status	Dorte	00.00	Cfc Ci-	Cicc pF	R14	R15	Eroa VII-		R14	R15	Eron VIII-	R14	l n	R15	Eron VIII-	D10 D12 /D)	TUD 6/	SNR -dBuA	OK	Comment	٦
			IRFP240	Qg nC		Ciss pF		330	Freq KHz 370,9	10	644,35	V12	Freq KHz 190		К	/12	Freq KHz	V10-K13 (K)	IHU %	SINK -OBUA	UK	Comment	-
	Q15 Q16	N P	IRFP240	44					370,9		044,33	698,0			-+		+	9.1					†
	Q10	1 ' 1	IIII F 3240	1 44	3.4	120	<u> </u>		30 401,3	,,,	1	0,050,0	190				1	1	1	1		1	<u> </u>
	SIM NOT WORK	ING Status	Parts	Qg nC	Gfs Sie	Ciss pF	R14	R15	Freq KHz		R14	R15	Freq KHz	R14	R	R15	Freq KHz	R10-R13 (R)	THD %	SNR -dBuA	ОК	Comment	7
	Q15	N Status	ECX10N20	-6.76	1	. 50		330	964,5	57	1675,31		190		- 1				/4				1
	Q16	P	ECX10P20		1.5				30 964,5		,51	1675,3						9.1					1
																							- -
	SIM NOT WORK	ING Status	Parts	Qg nC	Gfs Sie	Ciss pF	R14	R15	Freq KHz		R14	R15	Freq KHz	R14	R	R15	Freq KHz	R10-R13 (R)	THD %	SNR -dBuA	ОК	Comment	
	Q15	N	ECW20N20		8	90		330	535,8		930,73		190					9.1					
	Q16	Р	ECW20P20		3	185	0	3	30 267,9	93		452,7	8 190					9.1					
	_																						=
												Pa	ir of transisto	rs for op-am	p powe	er supply							
	Minimum Vds =																					1	=
Config A1	DEFAULT	Status	Parts	Qg nC	Gfs Sie	Ciss pF	R40	R41	Freq MHz		R40	R41	Freq MHz	R40	R	R41	Freq MHz	Freq MHz			OK	Comment	

Original config