

# Calculated output power selection sheet of push-pull converter

Unit : W

20KHz	50KHz	100KHz	250KHz	PLANAR	RM	EFD	EP	EER	EE	EI	PQ	TOROID
0.5	0.8	1.1	1.4					EER0905	EE0606			
0.7	1.3	1.7	3.3				EP7	EER1105				
1.1	1.1	2.2	3.3			EFD0808			EE0804			
2.1	2.9	4.2	7.9	PEI1405	RM4							
3.1	4.7	6.2	10.9	PEE1407			EP10		EE1312			T1307
4.7	7.8	9.3	18.6	PEI1806		EFD1515			EE1215			
8.0	12.5	17.9	35.0	PEE1808	RM6	EFD1618	EP13					
9.3	12.4	15.5	32.6			EFD1820			EE1614	EI1614		T1405
12.0	18.0	24.0	48.0			EFD2023C			EE1916	EI1916		
12.4	20.1	27.5	50.2			EFD2124						
18.6	27.9	41.9	82.2	PEI2208					EE2416	EI2218	PQ2016	
20.2	31.0	46.5	91.5	PEE2211					EE2519F			
23.3	34.1	49.6	96.1		RM8							
29.5	66.7	89.9	145.7									T1911
32.0	58.0	76.0	149.0			EFD2525					PQ2021	
43.4	69.8	100.8	196.9						EE2721			
46.5	76.0	108.5	212.4									T1910A
51.2	82.2	124.0	241.8		RM10	EFD3030				EI2820	PQ2620	
62.0	94.6	147.3	286.8						EE2525W			
65.1	108.5	155.0	302.3					EER2828D				
80.0	140.0	185.0	376.0								PQ2625	
74.4	116.3	170.5	413.0						EE3026B			
90.0	150.0	212.0	408.0					EER3019N				
105.0	172.0	260.0	480.0			EFD3133		EER2834D				
108.5	170.5	263.5	514.6							EI3026	PQ3220	
150.0	250.0	345.0	680.0					EER3530				T2907A
162.8	248.0	364.3	713.0					EER3534	EE3042			
170.5	294.5	387.5	744.0								PQ3230	
201.5	317.8	449.5	883.5					EER3540L	EE3549	EI4035		T2915
205.0	330.0	470.0	905.0					EER3541D				
217.0	333.3	527.0	987.9					EER3543D				T3113B
232.5	372.0	589.0	1148.6					EER3940F				
294.5	465.0	728.5	1421.4					EER3945				T3710
310.0	480.5	775.0	1511.3					EER4045				
341.0	542.5	821.5	1602.7					EER4242				T3813
356.5	542.5	852.5	1664.8								PQ3535	
403.0	620.0	930.0	1813.5					EER4243	EE4220			
465.0	697.5	1085.0	2115.8							EI5042		
527.0	852.5	1317.5	2569.9								PQ4040	
635.5	1007.5	1550.0	3022.5					EER4942				
750.2	1240.0	1810.0	3410.0					EER4954				T4416
1085.0	1705.0	2790.0	5440.5						EE5555A		PQ5050	
1317.5	2015.0	2945.0	5742.8	PEI6415								T4919
1395.0	2325.0	3100.0	6045.0						EE5555C	EI7056		
2480.0	4030.0	5735.0	11183.3	PEE6420								T6020
3100.0	4650.0	7130.0	13903.5						EE7091			
4340.0	6510.0	10075.0	19646.3									T7822

- Note :
- 1) Core loss to be approximately 100mW/cm<sup>3</sup>.
  - 2) Flux density used in each frequency as below : 200mT at 20KHz, 150mT at 50KHz, 100mT at 100KHz, 80mT at 250KHz.
  - 3) This sheet do not imply that a specific material or optimum temperature condition, so should be consider before choosing the ferrite core.

# Calculated output power selection sheet of flyback converter

Unit : W

20KHz	50KHz	100KHz	250KHz	PLANAR	RM	EFD	EP	EER	EE	EI	PQ	TOROID
0.2	0.4	0.5	0.7					EER0905	EE0606			
0.3	0.6	0.9	1.7				EP7	EER1105				
0.6	0.6	1.1	1.7			EFD0808			EE0804			
1.1	1.5	2.1	4.0	PEI1405	RM4							
1.6	2.3	3.1	5.4	PEE1407			EP10		EE1312			T1307
2.3	3.9	4.7	9.3	PEI1806		EFD1515			EE1215			
4.0	6.3	9.0	17.5	PEE1808	RM6	EFD1618	EP13					
4.7	6.2	7.8	16.3			EFD1820			EE1614	EI1614		T1405
6.0	9.0	12.0	24.0			EFD2023C			EE1916	EI1916		
6.2	10.1	13.8	25.1			EFD2124						
9.3	14.0	20.9	41.1	PEI2208					EE2416	EI2218	PQ2016	
10.1	15.5	23.2	45.7	PEE2211					EE2519F			
11.6	17.1	24.8	48.1		RM8							
14.7	33.3	45.0	72.9									T1911
16.0	29.0	38.0	74.5			EFD2525					PQ2021	
21.7	34.9	50.4	98.4						EE2721			
23.3	38.0	54.3	106.2									T1910A
25.6	41.1	62.0	120.9		RM10	EFD3030				EI2820	PQ2620	
31.0	47.3	73.6	143.4						EE2525W			
32.6	54.3	77.5	151.1					EER2828D				
40.0	70.0	92.5	188.0								PQ2625	
37.2	58.1	85.3	217.0						EE3026B			
45.0	75.0	106.0	204.0					EER3019N				
52.5	86.0	130.0	240.0			EFD3133		EER2834D				
54.3	85.3	131.8	257.3							EI3026	PQ3220	
75.0	125.0	172.5	340.0					EER3530				T2907A
81.4	124.0	182.1	356.5					EER3534	EE3042			
85.3	147.3	193.8	372.0								PQ3230	
100.8	158.9	224.8	441.8					EER3540L	EE3549	EI4035		T2915
102.5	165.0	235.0	452.5					EER3541D				
108.5	166.6	263.5	493.9					EER3543D				T3113B
116.3	186.0	294.5	574.3					EER3940F				
147.3	232.5	364.3	710.7					EER3945				T3710
155.0	240.3	387.5	755.6					EER4045				
170.5	271.3	410.8	801.4					EER4242				T3813
178.3	271.3	426.3	832.4								PQ3535	
201.5	310.0	465.0	906.8					EER4243	EE4220			
232.5	348.8	542.5	1057.9							EI5042		
263.5	426.3	658.8	1285.0								PQ4040	
317.8	503.8	775.0	1511.3					EER4942				
426.3	620.0	1007.5	1964.6					EER4954				T4416
542.5	852.5	1395.0	2720.3						EE5555A		PQ5050	
658.8	1007.5	1472.5	2871.4	PEI6415								T4919
697.5	1162.5	1550.0	3022.5						EE5555C	EI7056		
1240.0	2015.0	2867.5	5591.6	PEE6420								T6020
1550.0	2325.0	3565.0	6951.8						EE7091			
2170.0	3255.0	5037.5	9823.1									T7822

- Note :
- 1) Core loss to be approximately 100mW/cm<sup>3</sup>.
  - 2) Flux density used in each frequency as below : 200mT at 20KHz, 150mT at 50KHz, 100mT at 100KHz, 80mT at 250KHz.
  - 3) This sheet do not imply that a specific material or optimum temperature condition, so should be consider before choosing the ferrite core.

# Calculated output power selection sheet of forward converter

Unit : W

20KHz	50KHz	100KHz	250KHz	PLANAR	RM	EFD	EP	EER	EE	EI	PQ	TOROID
0.2	0.3	0.4	0.5					EER0905	EE0606			
0.2	0.4	0.6	1.1				EP7	EER1105				
0.4	0.4	0.7	1.1			EFD0808			EE0804			
0.7	1.0	1.4	2.6	PEI1405	RM4							
1.0	1.5	2.0	3.6	PEE1407			EP10		EE1312			T1307
1.5	2.6	3.1	6.1	PEI1806		EFD1515			EE1215			
2.6	4.1	5.9	11.6	PEE1808	RM6	EFD1618	EP13					
3.1	4.1	5.1	10.7			EFD1820			EE1614	EI1614		T1405
4.0	5.9	7.9	15.8			EFD2023C			EE1916	EI1916		
4.1	6.6	9.1	16.6			EFD2124						
6.1	9.2	13.8	27.1	PEI2208					EE2416	EI2218	PQ2016	
6.6	10.2	15.3	30.2	PEE2211					EE2519F			
7.7	11.3	16.4	31.7		RM8							
9.7	22.0	29.7	48.1									T1911
10.6	19.1	25.1	49.2			EFD2525					PQ2021	
14.3	23.0	33.2	65.0						EE2721			
15.3	25.1	35.8	70.1									T1910A
16.9	27.1	40.9	79.8		RM10	EFD3030				EI2820	PQ2620	
20.5	31.2	48.6	94.6						EE2525W			
21.5	35.8	51.2	99.7					EER2828D				
26.4	46.2	61.1	124.1								PQ2625	
24.6	38.4	56.3	138.0						EE3026B			
29.7	49.5	70.0	134.6					EER3019N				
34.7	56.8	85.8	158.4			EFD3133		EER2834D				
35.8	56.3	87.0	169.8							EI3026	PQ3220	
49.5	82.5	113.9	224.4					EER3530				T2907A
53.7	81.8	120.2	235.3					EER3534	EE3042			
56.3	97.2	127.9	245.5								PQ3230	
66.5	104.9	148.3	291.6					EER3540L	EE3549	EI4035		T2915
67.7	108.9	155.1	298.7					EER3541D				
71.6	110.0	173.9	326.0					EER3543D				T3113B
76.7	122.8	194.4	379.0					EER3940F				
97.2	153.5	240.4	469.0					EER3945				T3710
102.3	158.6	255.8	498.7					EER4045				
112.5	179.0	271.1	528.9					EER4242				T3813
117.6	179.0	281.3	549.4								PQ3535	
133.0	204.6	306.9	598.5					EER4243	EE4220			
153.5	230.2	358.1	698.2							EI5042		
173.9	281.3	434.8	848.1								PQ4040	
209.7	332.5	511.5	997.4					EER4942				
248.2	409.2	597.5	1125.0					EER4954				T4416
358.1	562.7	920.7	1795.4						EE5555A		PQ5050	
434.8	665.0	971.9	1895.1	PEI6415								T4919
460.4	767.3	1023.0	1994.9						EE5555C	EI7056		
818.4	1329.9	1892.6	3690.5	PEE6420								T6020
1023.0	1534.5	2352.9	4588.2						EE7091			
1432.2	2148.3	3324.8	6483.3									T7822

- Note :
- 1) Core loss to be approximately 100mW/cm<sup>3</sup>.
  - 2) Flux density used in each frequency as below : 200mT at 20KHz, 150mT at 50KHz, 100mT at 100KHz, 80mT at 250KHz.
  - 3) This sheet do not imply that a specific material or optimum temperature condition, so should be consider before choosing the ferrite core.