

eGaN® FETs and ICs



Part Number	Configuration	V _{DS} max	V _{GS} max	Max R _{DS(ON)} (mΩ) @5V _{GS}	Q _G typ (nC)	Q _{GS} typ (nC)	Q _{GD} typ (nC)	Q _{OSS} typ (nC)	Q _{RR} (nC)	C _{ISS} (pF)	C _{OSS} (pF)	C _{RSS} (pF)	I _D (A)	Pulsed I _D (A)	Max T _J (°C)	Package (mm)	Half-Bridge Development Board
EPC2040	Single	15	6	28	0.92	0.27	0.15	0.45	0	100	70	20	3.4	28	150	BGA 0.85 x 1.2	N/A
EPC2100	Half Bridge	30	6	2 8	15 3.5	4.6 1.4	2.6 0.57	28 5.5	0	1700 380	1600 290	110 20	38 9.5	400 100	150	BGA 6.05 x 2.3	EPC9036
EPC2023	Single	30	6	1.3	20	5.8	1.9	28	0	2300	1300	56	60	590	150	LGA 6.05 x 2.3	EPC9031
EPC8004	Single	40	6	110	0.37	0.12	0.047	0.63	0	45	23	0.8	2.7	7.5	150	LGA 2.05 x 0.85	EPC9024
EPC2014C	Single	40	6	16	2	0.7	0.3	4	0	220	150	6.5	10	60	150	LGA 1.7 x 1.1	EPC9005C
EPC2015C	Single	40	6	4	8.7	2.7	1.2	19	0	980	710	18	53	235	150	LGA 4.1 x 1.6	EPC9001C
EPC2030	Single	40	6	2.4	18	5.2	3.4	41	0	1900	1500	70	31	495	150	BGA 2.6 x 4.6	EPC9060
EPC2024	Single	40	6	1.5	18	5.1	2.4	45	0	1920	1620	29	90	560	150	LGA 6.05 x 2.3	EPC9032
EPC2108	Dual with Sync Boot	60	6	190 3300	0.22	0.085 0.20	0.045 0.004	0.6 1 0.134	0	22 7	13 23 1.6	0.4 0.02	1.7 0.02	5.5 0.5	150	BGA 1.35 x 1.35	N/A
EPC2035	Single	60	6	45	0.88	0.25	0.16	2.6	0	95	60	2	1	24	150	BGA 0.9 x 0.9	EPC9049
EPC2102	Half Bridge	60	6	4.4	6.8	2.3	1.4	31 23	0	830	710 510	14	23	215	150	BGA 6.05 x 2.3	EPC9038
EPC2101	Half Bridge	60	6	11.5 2.7	2.7 12	1 3.7	0.5 2.5	9 45	0	300 1200	200 1000	5 25	9.5 38	80 350	150	BGA 6.05 x 2.3	EPC9037
EPC2031	Single	60	6	2.6	17	5.2	3.2	50	0	1800	1000	30	31	450	150	BGA 2.6 x 4.6	EPC9061
EPC2020	Single	60	6	2.2	16	3.9	2.3	50	0	1780	1020	24	90	470	150	LGA 6.05 x 2.3	EPC9033
EPC8002	Single	65	6	480	0.133	0.057	0.015	0.344	0	20	6.7	0.12	2	2	150	LGA 2.05 x 0.85	EPC9022
EPC8009	Single	65	6	130	0.37	0.12	0.055	0.94	0	45	19	0.5	2.7	7.5	150	LGA 2.05 x 0.85	EPC9029
EPC2039	Single	80	6	25	2.4	0.76	0.42	7.6	0	210	115	2	6.8	50	150	BGA 1.35 x 1.35	EPC9057
EPC2103	Half Bridge	80	6	5.5	6.5	2	1.3	29 39	0	760	460 630	8.7	23	195	150	BGA 6.05 x 2.3	EPC9039
EPC2029	Single	80	6	3.2	13	3.4	1.9	53	0	1410	820	17	48	360	150	BGA 2.6 x 4.6	EPC9046

eGaN® FETs and ICs (continued)



Part Number	Configuration	V _{DS} max	V _{GS} max	Max R _{DS(ON)} (mΩ) @5V _{GS}	Q _G typ (nC)	Q _{GS} typ (nC)	Q _{GD} typ (nC)	Q _{OSS} typ (nC)	Q _{RR} (nC)	C _{ISS} (pF)	C _{OSS} (pF)	C _{RSS} (pF)	I _D (A)	Pulsed I _D (A)	Max T _J (°C)	Package (mm)	Half-Bridge Development Board
EPC2105	Half Bridge	80	6	14.5 3.4	2.5 10	1 3.2	0.5 2	11 55	0	300 1100	200 800	3 12	9.5 38	75 320	150	BGA 6.05 x 2.3	EPC9041
EPC2021	Single	80	6	2.5	15	3.4	2.3	63	0	1650	970	20	90	420	150	LGA 6.05 x 2.3	EPC9034
EPC2038	Single with Gate Diode	100	6	3300	0.044	0.02	0.004	0.134	0	7	1.6	0.02	0.5	0.5	150	BGA 0.9 x 0.9	N/A
EPC2037	Single	100	6	550	0.115	0.03	0.023	0.53	0	12.5	6	0.1	1	2.4	150	BGA 0.9 x 0.9	N/A
EPC2107	Dual with Sync Boot	100	6	320 3300	0.16 0.044	0.065 0.020	0.04 0.004	1.4 0.134	0	16 7	17 1.6	0.3 0.02	1.7 0.5	3.8 0.5	150	BGA 1.35 x 1.35	N/A
EPC8010	Single	100	6	160	0.36	0.13	0.06	2.2	0	43	25	0.3	2.7	7.5	150	LGA 2.05 x 0.85	EPC9030
EPC2036	Single	100	6	73	0.7	0.17	0.14	3.9	0	75	50	0.7	1.7	18	150	BGA 0.9 x 0.9	EPC9050
EPC2106	Half Bridge	100	6	70	0.73 0.76	0.22 0.24	0.165	3.4 4.4	0	75 79	42 56	0.9	1.7	18	150	BGA 1.35 x 1.35	EPC9055
EPC2007C	Single	100	6	30	1.6	0.6	0.3	8.3	0	170	110	1.9	6	40	150	LGA 1.7 x 1.1	N/A
EPC2016C	Single	100	6	16	3.4	1.1	0.55	16	0	360	210	3.2	18	75	150	LGA 2.1 x 1.6	EPC9010C
EPC2045	Single	100	6	7	5.2	1.7	1.1	21	0	570	260	5	16	130	150	BGA 1.5 x 2.5	EPC9080
EPC2001C	Single	100	6	7	7.5	2.4	1.2	31	0	770	430	10	36	150	150	LGA 4.1 x 1.6	EPC9002C
EPC2104	Half Bridge	100	6	6.3	7	2	1.2	35 47	0	800	450 600	7	23	165	150	BGA 6.05 x 2.3	EPC9040
EPC2032	Single	100	6	4	12	3	2	66	0	1270	800	12	48	340	150	BGA 2.6 x 4.6	EPC9062
EPC2022	Single	100	6	3.2	13.2	3.4	2.4	71	0	1400	840	7	90	390	150	LGA 6.05 x 2.3	EPC9035
EPC2110	Dual Common Source	120	6	60	0.8	0.25	0.19	4.9	0	80	50	0.75	3.4	20	150	BGA 1.35 x 1.35	N/A
EPC2033	Single	150	6	7	12	3.8	3.2	90	0	1160	480	6	48	260	150	BGA 2.6 x 4.6	EPC9047
EPC2012C	Single	200	6	100	1	0.3	0.2	10	0	100	64	0.4	5	22	150	LGA 1.7 x 0.9	EPC9004C
EPC2019	Single	200	6	50	1.8	0.6	0.35	18	0	200	110	0.7	8.5	42	150	LGA 2.77 x 0.95	EPC9014
EPC2010C	Single	200	6	25	3.7	1.3	0.7	40	0	380	240	1.8	22	90	150	LGA 3.6 x 1.6	EPC9003C
EPC2047	Single	200	6	10	8.2	2.9	1.8	60	0	875	390	4	32	160	150	BGA 4.6 x 1.6	EPC9081
EPC2034	Single	200	6	10	8.8	3	1.8	75	0	950	450	2.3	48	200	150	BGA 2.6 x 4.6	N/A
EPC2025	Single	300	6	120	1.8	0.72	0.32	22	0	200	46	0.1	6.3	20	150	BGA 1.95 x 1.95	EPC9042

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Part Number	Description	V _{DS} (max)	I _D (max RMS)	Featured Product
EPC9201	PCB-based half-bridge circuit module	30	40	EPC2015C/EPC2023
EPC9203	PCB-based half-bridge circuit module	80	20	EPC2021

Half Bridge Development Boards



Part Number	Description	V_{DS} (max)	I_D (max RMS)	Featured Product
EPC9036	Power Stage evaluation of monolithic GaN half bridge	30	25	EPC2100
EPC9018	Half Bridge Plus Driver for low duty cycle applications	30	35	EPC2015/EPC2023
EPC9031	Half Bridge Plus Driver	30	40	EPC2023
EPC9059	Half Bridge Parallel Evaluation For high current applications	30	50	EPC2100
EPC9066	Half Bridge Plus Driver with Synchronous Bootstrap	40	2.7	EPC8004
EPC9005C	Half Bridge Plus Driver	40	7	EPC2014C
EPC9001C	Half Bridge Plus Driver	40	15	EPC2015C
EPC9060	Half Bridge Plus Driver	40	25	EPC2030
EPC9032	Half Bridge Plus Driver	40	35	EPC2024
EPC9049	Half Bridge Plus Driver	60	4	EPC2035
EPC9038	Power Stage evaluation of monolithic GaN half bridge	60	20	EPC2102
EPC9037	Power Stage evaluation of monolithic GaN half bridge	60	22	EPC2101
EPC9061	Half Bridge Plus Driver	60	24	EPC2031
EPC9033	Half Bridge Plus Driver	60	30	EPC2020
EPC9022	Half Bridge Plus Driver	65	1.6	EPC8002
EPC9067	Half Bridge Plus Driver with Synchronous Bootstrap	65	2.7	EPC8009
EPC9057	Half Bridge with Gate Drive	80	6	EPC2039
EPC9039	Power Stage evaluation of monolithic GaN half bridge	80	17	EPC2103
EPC9041	Power Stage evaluation of monolithic GaN half bridge	80	20	EPC2105
EPC9046	Half Bridge Plus Driver	80	22	EPC2029

Half Bridge Development Boards (continued)



Part Number	Description	V_{DS} (max)	I_D (max RMS)	Featured Product
EPC9034	Half Bridge Plus Driver	80	27	EPC2021
EPC9063	Half Bridge with Sync FET Bootstrap Gate Drive	100	1.5	EPC2107
EPC9050	Half Bridge Plus Driver	100	2.5	EPC2036
EPC9068	Half Bridge Plus Driver with Synchronous Bootstrap	100	2.7	EPC8010
EPC9055	Half Bridge Plus Driver	100	3	EPC2106
EPC9006C	Half Bridge Plus Driver	100	7	EPC2007C
EPC9010C	Half Bridge Plus Driver	100	7	EPC2016C
EPC9002C	Half Bridge Plus Driver	100	10	EPC2001C
EPC9040	Power Stage evaluation of monolithic GaN half bridge	100	15	EPC2104
EPC9062	Half Bridge Plus Driver	100	20	EPC2032
EPC9078	Half Bridge Plus Driver	100	20	EPC2045
EPC9035	Half Bridge Plus Driver	100	25	EPC2022
EPC9080	Half Bridge Plus Driver for High Step Down / High Current	100	30	EPC2045/EPC2022
EPC9013	Multiple Half Bridges in Parallel	100	35	EPC2001C
EPC9047	Half Bridge Plus Driver	150	12	EPC2033
EPC9048	Half Bridge Plus Driver	160	12	EPC2034
EPC9004C	Half Bridge Plus Driver	200	2	EPC2012C
EPC9014	Half Bridge Plus Driver	200	4	EPC2019
EPC9003C	Half Bridge Plus Driver	200	5	EPC2010C
EPC9081	Half Bridge Plus Driver	200	15	EPC2047

Half Bridge Development Boards (continued)



Part Number	Description	V_{DS} (max)	I_D (max RMS)	Featured Product
EPC9042	Half Bridge Plus Driver	300	3	EPC2025

High Frequency Half Bridge Development Boards



Part Number	Description	V_{DS} (max)	I_D (max RMS)	Featured Product
EPC9024	Half Bridge Plus Driver	40	4.4	EPC8004
EPC9027	Half Bridge Plus Driver	40	3.5	EPC8007
EPC9028	Half Bridge Plus Driver	40	2.2	EPC8008
EPC9022	Half Bridge Plus Driver	65	1.6	EPC8002
EPC9025	Half Bridge Plus Driver	65	2.2	EPC8005
EPC9029	Half Bridge Plus Driver	65	3.5	EPC8009
EPC9023	Half Bridge Plus Driver	100	2.2	EPC8003
EPC9030	Half Bridge Plus Driver	100	3.2	EPC8010

Demonstration Boards



Part Number	Description	V _{IN}	V _{OUT}	I _{OUT}	Featured Product
EPC9051	High Frequency Class-E Power Amplifier	0 V - 40 V		1 A	EPC2037
EPC9052	Class-E Wireless Power Amplifier	0 V - 40 V		1 A	EPC2012C
EPC9053	Class-E Wireless Power Amplifier	0 V - 40 V		1 A	EPC2019
EPC9054	Class-E Wireless Power Amplifier	0 V - 40 V		1 A	EPC2010C
EPC9065	High Power ZVS Class-D Development Board	12 V (max V _{DD})	80 V	1.8 A _{RMS}	EPC2007C/EPC8010
EPC9101	19 V to 1.2 V 1MHz Buck Converter	8 V - 19 V	1.2 V	18 A	EPC2014/EPC2015
EPC9105	48 V to 12 V 1.2 MHz Intermediate Bus Converter	36 V - 60 V	12 V	30 A	EPC2001/EPC2015
EPC9106	150 W / 8 Ω Class D Audio Amplifier Demo System				EPC2016
EPC9107	28 V to 3.3 V Buck Converter	9 V - 28 V	3.3 V	15 A	EPC2015
EPC9111	A4WP compatible, ZVS Class-D Wireless Power System	8 V - 32 V	V _{IN}	10 A	EPC2014C/EPC2038
EPC9112	A4WP compatible, ZVS Class-D Wireless Power System	8 V - 32 V	V _{IN}	6 A	EPC2007C/EPC2038
EPC9113	A4WP compatible, ZVS Class-D Wireless Power System	17 V - 24 V	52 V	1 A	EPC2108/EPC2036
EPC9114	A4WP compatible, ZVS Class-D Wireless Power System	17 V - 24 V	66 V	0.8 A	EPC2107/EPC2036
EPC9115	48 V to 12 V 1/8th Brick Converter	48 V - 60 V	12 V	42 A	EPC2020/EPC2021
EPC9118	48 V to 5 V 400 kHz Buck Converter	30 V - 60 V	5 V	20 A	EPC2001/EPC2021
EPC9121	10 W Multi-Mode Wireless Power System	17 V - 24 V	65 V/26 V	1.7 A	EPC2007/EPC2038/EPC2036
EPC9506	Amplifier board for ZVS Class-D wireless system	8 V - 32 V	V _{IN}	10 A	EPC2014C/EPC2038
EPC9507	Amplifier board for ZVS Class-D wireless system	8 V - 36 V	V _{IN}	6 A	EPC2007C/EPC2038
EPC9509	Amplifier board for ZVS Class-D wireless system	9 V - 24 V	52 V	1 A	EPC2108/EPC2036

Demonstration Boards (continued)

Part Number	Description	V _{IN}	V _{OUT}	I _{OUT}	Featured Product
EPC9510	Amplifier board for ZVS Class-D wireless system	9 V - 24 V	66 V	0.8 A	EPC2107/EPC2036
EPC9511	10 W Multi-Mode Wireless Power System	17 V - 24 V	66 V/26 V	1.7 A	EPC2107/EPC2038/EPC2036

LiDAR Demonstration Boards



Part Number	Description	V_{BUS} (max)	V_{INPUT} (max)	T_{pin} (min)	Featured Product
EPC9126	High Current Pulsed Laser Diode Driver Demo Board	80 V	5 V	6 ns	EPC2016C