



GLF Integrated Power Inc.

Integrated Power Load Switch

Product Type	Product Name	V _{IN} Min. Voltage [V]	V _{IN} Max. Voltage [V]	I _{OUT} Rating [A]	R _{ON} Typ. @ V _{IN} Max [mΩ]	I _Q Typ. @ V _{IN} Max [nA]	I _{SD} Typ. @ V _{IN} Max [nA]	Slew Rate Control	Rise Time t _r Typ. [μs]	EN Active	Output Discharge [Ω]	Reverse Current Blocking	ESD [kV]	Operating Temperature [°C]	Package Type						
Nano-Current Consumption	GLF1120H	1.1	5.5	1	52	5	10	√	380	H	NA	NA	HBM : 3 CDM : 2	- 40 to 85	CSP 0.67 x 0.67 x 0.425						
	GLF1121H				52	5	10	√	380	H	85	NA									
	GLF1121HN				52	5	10	√	380	H	85	NA									
	GLF1121L				52	550	10	√	380	L	85	NA									
	GLF1123H				52	5	10	√	4	H	85	NA									
	GLF1100	1.5	5.5	2	82	5	25	√	2.2 ms	H	85	NA	HBM : 6 CDM : 2	- 40 to 85	SOT23-5L						
	GLF1131HT				34	2	19	√	450	H	85	NA									
	GLF1133HT				34	2	19	√	2450	H	85	NA									
	GLF1231HT				34	1.2	19	√	410	H	85	NA									
	GLF1232HT				34	1.2	19	√	6	H	NA	NA									
	GLF1110				54	2	13	√	600	H	NA	NA									
	GLF1111				54	2	13	√	600	H	85	NA									
	GLF1110H				54	2	13	√	600	H	NA	NA									
	GLF1111H				54	2	13	√	600	H	85	NA									
	GLF71300				1.1	5.5	2	34	1	19	√	430				H	NA	NA	HBM : 6 CDM : 2	- 40 to 85	CSP 0.77 x 0.77 x 0.46
	GLF71301	34	1	19				√	430	H	85	NA									
	GLF71301H	34	1	19				√	430	H	85	NA									
	GLF71301T	34	1	19				√	430	H	85	NA									
	GLF71302	34	0.54 uA	19				√	430	L	NA	NA									
	GLF71303	34	0.54 uA	19				√	430	L	85	NA									
	GLF71305	34	3	22				√	340	H	85	NA									
	GLF71306	34	1	19				√	42	H	NA	NA									
	GLF71307	34	1	19				√	9	H	85	NA									
	GLF71308	34	1	19				√	42	H	85	NA									
	GLF71310	1.1	5.5	3	31	7	28	√	335	H	NA	NA	HBM : 6 CDM : 2	- 40 to 85	CSP 0.97 x 0.97 x 0.55						
	GLF71311				31	7	28	√	335	H	85	NA									
	GLF71311T				31	7	28	√	335	H	85	NA									
	GLF71313				31	0.52 uA	28	√	335	L	85	NA									
	GLF71315				31	7	28	√	335	H	85	NA									
	GLF71511				25	7	28	√	2.2 ms	H	85	NA									
	GLF71320				4	5.5	4	15	3	50	√	400				H	NA	NA	HBM : 6 CDM : 2	- 40 to 85	CSP 0.97 x 1.47 x 0.55
	GLF71321							15	3	50	√	400				H	80	NA			
GLF71322	15							570	40	√	400	L				NA	NA				
GLF71323	15							570	40	√	400	L				80	NA				
GLF71325	18 @ 3.3 V	1 @ 3.3 V	16 @ 3.3 V	√				2.2 ms	H	85	NA										
GLF81311	2	6.5	3	41	10	20	√	2.3 ms	H	560	NA	HBM : 8 CDM : 2	- 40 to 85	SOT23-5L							
Prog. Long t _r of V _{OUT}	GLF71430	1.5	5.5	7	10	10	10	Prog.	up to 34 ms	H	NA				NA						
	GLF71431				10	10	55		up to 34 ms	H	85				NA						
	GLF1561	0.6	5.5	10	4.5	7.6	4	√	up to 10 ms	H	50	NA	HBM : 4 CDM : 2		CSP 1.77 x 2.17 x 0.623						

Integrated Power Load Switch (Continued Table)

Product Type	Product Name	V _{IN} Min. Voltage [V]	V _{IN} Max. Voltage [V]	I _{OUT} Rating [A]	R _{ON} Typ. @ V _{IN} Max [mΩ]	I _Q Typ. @ V _{IN} Max [nA]	I _{SD} Typ. @ V _{IN} Max [nA]	Slew Rate Control	Rise Time t _r Typ. [us]	EN Active	Output Discharge [Ω]	Reverse Current Blocking	ESD [kV]	Operating Temperature [°C]	Package Type			
2-Channel	GLF1411	1.5	5.5	1	180	10	32	√	390 @ SR= High 45 @ SR= GND	H	95	NA	HBM : 5 CDM : 2		DFN 1.5 x 1.5 -8L			
	GLF1421				175	440	20	√	465 @ SR= High 50 @ SR= GND	H	95	√						
3-Channel	GLF78131 / T	1.1	5.5	1.5	60	6	23	√	500	H	235	NA	HBM : 6 CDM : 2		CSP 1.27 x 1.67 x 0.55/ 0.35 T			
Reverse Current Blocking	GLF1220H	1.5	5.5	1	52	500	10	√	390	H	NA	√	HBM : 3 CDM : 2	- 40 to 85	CSP 0.67 x 0.67 x 0.425			
	GLF1221H				52	500	10	√	390	H	85	√						
	GLF72100			2	37	0.45 uA	20	√	570	H	NA	√	HBM : 4 CDM : 2	- 40 to 85	CSP 0.77 x 0.77 x 0.46			
	GLF72101				37	0.45 uA	20	√	570	H	85	√						
	GLF72102*				37	0.45 uA	20	√	570	L	NA	√						
	GLF72103				37	0.45 uA	20	√	48	H	85	√						
	GLF72105				37	0.45 uA	20	√	890	L	85	√						
	GLF72106				37	0.45 uA	20	√	890	L	NA	√						
	GLF1200				54	0.47 uA	13	√	600	H	NA	√				HBM : 6 CDM : 2	- 40 to 105	SOT23-5L
	GLF1201				54	0.47 uA	13	√	600	H	85	√						
	GLF1200H				54	0.47 uA	13	√	600	H	NA	√						
	GLF1201H				54	0.47 uA	13	√	600	H	85	√						
	GLF72110			3	29	1.4 uA	24	√	1.2 ms	H	NA	√	HBM : 4 CDM : 2	- 40 to 125	CSP 0.97 x 0.97 x 0.55			
	GLF72111				29	1.4 uA	24	√	1.2 ms	H	85	√						
	GLF72112				29	1.4 uA	24	√	18 us	H	NA	√						
	GLF72120			4	14	1.3 uA	56	√	730	H	NA	√	HBM : 6 CDM : 2	- 40 to 85	CSP 0.97 x 1.47 x 0.55			
	GLF72122				14	1.3 uA	56	√	2000	H	NA	√						
	GLF82321			2	6.5	2	40	1.6 uA	20	√	2.6 ms	H	550	√	HBM : 6 CDM : 2		SOT23-5L	
Ultra-Low V _{IN}	GLF72501	0.8	3.6	2	32	180 nA @ 1 V	630	√	390	H	85	√**	HBM : 6 CDM : 2	- 40 to 85	CSP 0.77 x 0.77 x 0.46			
	GLF72510				3	27	80 nA @ 1.2 V 15 uA @ 3.6 V	6	√	420	H					NA		
	GLF72511			4		10	60 nA @ 0.8 V 6.5 uA @ 3.6 V	6.5	√	800	H					85		
	GLF72520					10	6.5	√	280	H	85							
	GLF72524			9	5.6 uA @ 0.7 V 8.8 uA @ 3.6 V	14	√	82	H	85	√					HBM : 8 CDM : 2	- 40 to 105	CSP 0.97 x 1.47 x 0.55
	GLF72525	0.7	9	5.6 uA @ 0.7 V 8.8 uA @ 3.6 V	14	√	82	H	85	√	HBM : 8 CDM : 2	- 40 to 105	CSP 0.97 x 1.47 x 0.35					
	GLF72525T		9	5.6 uA @ 0.7 V 8.8 uA @ 3.6 V	14	√	82	H	85	√	HBM : 8 CDM : 2	- 40 to 85	SOT23-5L					
	GLF1501	0.85	3.6	3	52	50 nA @ 0.85 V 30 uA @ 3.6 V	6	√	400	H	85	√**	HBM : 4 CDM : 2	- 40 to 85	SOT23-5L			
	GLF1511	0.7	5.5	4	13	2 uA @ 0.7 V 30 uA @ 5.5 V	30	√	360	H	250	√**	HBM : 8 CDM : 2	- 40 to 105	CSP 0.97 x 1.47 x 0.55			
	GLF1521	0.6	3.6	5	22	15uA	48	√	up to 10 ms	H	200	NA	HBM : 4 CDM : 1	- 40 to 105	DFN 2 x 2 -8L			
GLF1531	0.8	5.5	2	33	14 uA	13	√	2.83 ms	H	21	√**	HBM : 2 CDM : 1	- 40 to 105	SOT23-6L				
Ultra-Low V _{IN} (2-channel)	GLF1401	0.6	5.5	6	19	18 uA @ Dual-Ch 15 uA @ Single-Ch	8	√	1.97ms	H	200	NA	HBM : 4 CDM : 2	- 40 to 85	DFN 2 x 3 -14L			
	GLF1403	0.6	5.5	6	19	18 uA @ Dual-Ch 15 uA @ Single-Ch	8	√	1.00ms	H	200	NA	HBM : 4 CDM : 2	- 40 to 85	DFN 2 x 3 -14L			

(Note) * : On Request

** : Reverse Current Blocking Protection When Disabled

Power Mux IC

Product Type	Product Name	V _{IN} Min. Voltage [V]	V _{IN} Max. Voltage [V]	I _{OUT} Rating [A]	R _{ON} Typ. @ V _{IN} Max [mΩ]	I _Q Typ. @ V _{IN} Max [μA]	I _{SD} Typ. @ V _{IN} Max [nA]	Slew Rate Control	Rise Time t _r Typ. [μs]	V _{IN} Auto Select	V _{IN} Manual Selection	Output Discharge [Ω]	Reverse Current Blocking	Operating Temperature [°C]	Package Type	
Power Mux	GLF74520	1.5	5.5	2.5	35	4	20	√	350	√	√	NA	√*	- 40 to 85	CSP 0.97 x 1.47 x 0.55	
	GLF74521				35	4	20	√	350	√	√	70	√*			
	GLF74130				2.0	5.5	4.5	20	4	50	√	790	√		√	NA
	GLF74138	20	4	30				√	573	√	√	NA	√*			
	GLF74139	20	4	30				√	1 ms	√	√	NA	√			
	GLF4000	1.5	5.5	2				68	4	20	√	350	√		√	√
	GLF4001				68	4	20	√	350	√	√	NA	√*			
	GLF4002				Ch1: 2 Ch2: 1.5	Ch1: 21 Ch2: 38	1.1	500	√	1.2 ms	√	√	NA		√	CSP 1.27 x 1.27 x 0.55
	GLF4003				4.8	Ch1: 45 Ch2: 77	1.1	400	√	1.2 ms	√	√	NA		√	DFN 2 x 3 -8L
	GLF4020				2.5	6.5	2	92	4	6	√	448	√		√	NA
GLF4028	97 @ 5.5 V 105 @ 4.5 V	3	5	√				340	√	√	NA	√*				

(Note)*: Reverse Current Blocking Protection When Disabled

Battery Protection IC

Product Type	Product Name	V _{IN} Max. Voltage [V]	I _{OUT} Rating [A]	R _{ON} Typ. @ 4.2 V [mΩ]	R _{ON} Typ. @ 3.6 V [mΩ]	I _Q Typ. @ 4.2 V [μA]	I _Q Typ. @ 3.6 V [μA]	I _{SD} Typ. @ 2.5 V [nA]	Over Charge Protection V _{OC} [V]	Over Discharge Protection, V _{OD} [V]	Short Circuit Protection I _{SC} [A]	ON Voltage to V _{OUT} , V _{ON} [V]	V _{BAT} Min Charging [V]	Operating Temperature [°C]	Package Type
Battery Protection	GLF73510	5.5	2	28	30	0.73	0.51	2	NA	3.05	NA	3.5	0.4	- 40 to 85	CSP 0.97 x 0.97 x 0.55
	GLF73511		1	130	145	0.55	0.51	NA	NA	1.95	NA	1.3			CSP 0.67 x 0.67 x 0.425
	GLF73710		1.5	30	31	0.70	0.65	35	NA	2.88	0.55	3.6			
	GLF73910-AD01			34	36	0.79	0.72	70	4.35	2.8	0.6	3.6			
	GLF73910-AD01C			34	36	0.79	0.72	70	4.35	2.8	0.6	3.6	0		
	GLF73910-BD01			34	36	0.79	0.72	70	4.50	2.8	0.6	3.6			
	GLF73911-AD01*			34	36	0.79	0.72	35	4.35	2.8	0.6	3.6	0.4		
	GLF73912			53	57	1	0.9	7	4.35	2.8	0.5	3.6			

(Note) * : Monitor V_{OUT} to release V_{OC}.

Product Type	Product Name	I _{OUT} Rating [A]	R _{ON} Typ. @ 4.2 V [mΩ]	I _Q Typ. @ 3.6 V [μA]	I _{SD} Typ. @ 2.5 V [nA]	Over Charge Protection V _{OC} [V]	Over Discharge Protection, V _{OD} [V]	Over Charge Current I _{OC} [mA]	Over Discharge Current I _{OD} [mA]	Short Circuit Protection I _{SC} [mA]	ON Voltage to V _{OUT} , V _{ON} [V]	Shipping Mode	V _{BAT} Min Charging [V]	Operating Temperature [°C]	Package Type
Battery Protection with Shipping Mode	GLF73915-AD12C	1.5	53	0.9	7	4.35	2.8	300	NA	500	3.6	√	0	- 40 to 85	CSP 0.97 x 0.97 x 0.55
Full Protection	GLF73610-CE23C		58	1.48 @ 3.7 V	8	4.450	2.8	330	76	250	3.6	√	0		
	GLF73610-DE23C					4.275									
	GLF73610-GE23C					4.475									
	GLF73610-HE23C					4.525									
	GLF73611A*		56	1.6	15	4.475	2.9	330	215	500	3.6	√	1.32		
GLF73611B	2.8														

(Note) * : Monitor V_{OUT} to release V_{OC}.

Current Limit Power Switch

Product Type	Product Name	V _{IN} Max. Voltage [V]	I _{OUT} Rating [A]	R _{ON} Typ. @ V _{IN} Max [mΩ]	I _o Typ. @ V _{IN} Max [uA]	ISD Typ. @ V _{IN} Max [nA]	I _{LIM} Current Limit [A]	Short Circuit Protection I _{sc} [A]	Reverse Current Blocking	EN Active	Output Discharge [Ω]	Thermal Shutdown [°C]	ESD [kV]	Operating Temperature [°C]	Package Type	
Current Limit	GLF2310A-T1G7	5.5	2.6	56	20	50	40 mA ~2.1 A	6.6	√	H	NA	140	HBM : 8 CDM : 2	- 40 to 85	SOT23-5L	
	GLF2310A-T2G7			56	20	50		6.6	√	H	NA				SOT23-6L	
	GLF2311A-T1G7			56	20	50		6.6	√	H	300				SOT23-5L	
	GLF2311A-T2G7			56	20	50		6.6	√	H	300				SOT23-6L	
	GLF2311B			56	20	50		Fixed 2 A	6.6	√	H				300	SOT23-5L
	GLF2313B			56	20	50			6.6	√	L				300	
	GLF2321B		1.8	56	20	50	Fixed 1.5 A	5.3	√	H	300					
	GLF2331B		2.6	53	18	35	Fixed 1.3 A	√	√	H	300					
	GLF2351B		2.8	40	17	60	Fixed 2.55 A	4.6	√	H	300					
	GLF2351A		3	32	19	63	40 mA~2.8 A	√	√	H	300		CSP 0.97 x 1.47 x 0.55			
	GLF2353B		2.5	53	17	60	Fixed 2.55 A	√	√	H	97		SOT23-5L			
	GLF2363A		4	24	26	50	100 mA~4 A	√	√	H	98		SOT23-6L			

Over Voltage Protection Switch

Product Type	Product Name	V _{IN} Max. Voltage [V]	I _{OUT} Rating [A]	UVLO [V]	V _{OVp} Internal [V]	V _{OVp} Prg. Range [V]	R _{ON} Typ. @ 5 V _{IN} [mΩ]	I _o Typ. @ 5 V _{IN} [uA]	Short Circuit V _{OUT} Detection [V]	Flag Indication	Thermal Shutdown [°C]	EN Active	ESD [kV]	Operating Temperature [°C]	Package Type
Over Voltage Protection	GLF2201	9	3	2.3	6.8	4 ~ 7	42	77	2	L	150	H	HBM : 6 CDM : 2	- 40 to 85	DFN 2 x 2 -6L
	GLF2204	9	2	2.8	6.85	6.7 ~ 7	188	80	NA	L	150	L	HBM : 2 CDM : 1	- 40 to 150	DFN 2 x 2 -8L

System Power Reset IC

Product Type	Product Name	V _{IN} Min. Voltage [V]	V _{IN} Max. Voltage [V]	I _{OUT} Rating [A]	R _{ON} Typ. @ 3.6 V [mΩ]	I _Q Typ. @ 3.6 V [nA]	ISD Typ. @ 3.6 V [nA]	Output Discharge [Ω]	Rise Time t _r Typ [ms]	On Delay Time by /SRO, t _{VON} [s]	On Delay Time by WAKE, t _{ION} [ms]	Off Delay Time, t _{SLY-Dly} [s]	Reset Duration, t _{Reset} [ms]	Operating Temperature [°C]	Package Type
Power Reset	GLF76121	2.5	5.5	2	34	3	7	85	1	1.5	0.9	6	750	- 40 to 85	CSP 0.97 x 1.47 x 0.55
	GLF76121S			2	34	3	7	85	1	1.5	0.9	3.0	360		
	GLF76121L			2	34	3	7	85	1	1.5	0.9	12	750		
	GLF76431	1.8	5.5	6	19	0.42 uA	0.36 uA	90	1	0.8 ms	0.8	7.5	470		CSP 1.27 x 1.67 x 0.55

System Power Deep Sleep IC

Product Type	Product Name	V _{IN} Min. Voltage [V]	V _{IN} Max. Voltage [V]	I _{OUT} Rating [A]	R _{ON} Typ. @ 3.6 V [mΩ]	I _Q Typ. @ 3.6 V [nA]	ISD Typ. @ 3.6 V [nA]	Output Discharge [Ω]	Slew Rate Control	Rise Time t _r Typ [ms]	On Delay Time by /SRO, t _{VON} [s]	On Delay Time by WAKE, t _{ION} [ms]	Off Delay Time, t _{SLY-Dly} [s]	Operating Temperature [°C]	Package Type
Power Deep Sleep	GLF76311	2.5	5.5	2	34	4	7	85	√	1.3	3	NA	6	- 40 to 85	CSP 0.97 x 0.97 x 0.55
	GLF76321 / T	1.5		2	31	3	7	85	√	1	1.3	0.8	7		CSP 0.97 x 1.47 x 0.55/ 0.35 T
	GLF76521 / T	1.8		2	31	3	7	85	√	1	0.3	0.8	1.8		

Linear Regulator

Product Type	Product Name	V _{IN} Max. Voltage [V]	V _{OUT} Voltage [V]	V _{OUT} Accuracy [%]	Line Regulation [%/V]	Load Regulation [%/mA]	I _{OUT} Rating [mA]	Dropout [V]	Short Circuit [mA]	I _Q Typ. @ No load [μA]	I _{SD} Typ. [nA]	EN Pin	ESD [kV]	Operating Temperature [°C]	Package Type
Linear Regulator	GLF9011-18	5.5	1.8	2.5	0.16	0.002	150	52 @150mA	250	0.4	4	H	HBM : 6 CDM : 2	- 40 to 85	CSP 0.97 x 0.97 x 0.55
	GLF9011-28		2.8	2.5	0.16	0.002	150	60 @150mA	250	0.4	4	H			
	GLF9011-30		3.0	2.5	0.1	0.002	150	62 @150mA	250	0.4	4	H			
	GLF9900-33T1		3.3	2.5	0.16	0.01	300	0.6 @300mA	400	0.24	120	H	HBM : 2 CDM : 0.5		SOT23-5L
	GLF9900-33T3		3.3	2.5	0.09	0.01	200	0.334 @200mA	400	0.24	120	NA			SOT23-3L

DC-DC Switching Regulators

Product Type	Product Name	V _{IN} Min. Voltage [V]	V _{IN} Max. Voltage [V]	V _{OUT} Min. Voltage [V]	V _{OUT} Max. Voltage [V]	I _{OUT} [A]	I _Q Typ. [μA]	Switching Frequency [Mhz]	R _{ON} Typ. High Side [mΩ]	R _{ON} Typ. Low Side [mΩ]	PSM/Forced PWM	Power Good	Features	Operating Temperature [°C]	Package Type
Step-Down	GLF8114	2.5	5.5	0.6	5.5	4.0	21.0	1.3	75.0	57.0	PSM	√	TSD, Cycle by cycle current protection	- 40 to 85	QFN 3 x 3 - 16L

Automotive - Integrated Power Load Switch

Product Type	Product Name	V _{IN} Min. Voltage [V]	V _{IN} Max. Voltage [V]	I _{OUT} Rating [A]	R _{ON} Typ. @ V _{IN} Max [mΩ]	I _Q Typ. @ V _{IN} Max [nA]	I _{SD} Typ. @ V _{IN} Max [nA]	Slew Rate Control	Rise Time t _r Typ. [μs]	EN Active	Output Discharge [Ω]	Reverse Current Blocking	ESD [kV]	Operating Temperature [°C]	Package Type
Nano-Current Consumption	GLF1111Q	1.5	5.5	2	60	2	13	√	400	H	85	NA	HBM : 4 CDM : 2	- 40 to 125	SOT23-5L
	GLF1110Q	1.5	5.5	2	60	2	13	√	400	H	NA	NA			
True Reverse Current Blocking	GLF1200Q	1.5	5.5	2	60	480	25	√	600	H	NA	√			SOT23-5L
	GLF1201Q	1.5	5.5	2	60	480	25	√	600	H	85	√			
Ultra-Low V _{IN}	GLF1531Q	0.8	5.5	2	44	14 uA	13	√	2.83 ms	H	21	√*	HBM : 2 CDM : 1	SOT23-6L	

(Note) *: Reverse Current Blocking Protection When Disabled