



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 _o 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			
Nano-Current Consumed	GLF71300	1.1	5.5	2	34	1	19	✓	430	H	NA	NA	HBM : 6 CDM : 2	-40 ~ 85	CSP 0.77 x 0.77 x 0.46			
	GLF71301					1				H	85							
	GLF71301H					1				H	85							
	GLF71302					0.54 uA				L	NA							
	GLF71303					0.54 uA				L	85							
	GLF71306					1				H	NA							
	GLF71308					1				H	85							
	GLF71305					1.5				5.5	3			22		340	H	85
	GLF71307	1.1	5.5	2	31	1	19	9	H	85	-40 ~ 105							
	GLF71310					7	28	335	H	NA								
	GLF71311					0.52 uA	L	85										
	GLF71313					7	H	85										
	GLF71315					2	25	7	28	✓	2.2 ms	H	85					
	GLF71511					4	15	3	50	✓	400	H	NA					
	GLF71320					4	15	3	50	✓	400	H	85					
	GLF71321					4	18 @ 3.3 V	1 @ 3.3 V	16 @ 3.3 V	✓	2.2 ms	H	85					
	GLF71325					2	34	1	19	✓	430	H	85					
	GLF71301T					2	31	7	28	✓	335	H	85					
	GLF71311T	2	82	5	25	✓	2.2 ms	H	85									
	GLF1100-T1G7	1.5	5.5	2	54	2	13	✓	600	H	NA	NA	HBM : 4 CDM : 2	-40 ~ 105	CSP 0.77 x 0.77 x 0.35			
	GLF1110-T1G7					2	13	✓	600	H	85			CSP 0.97 x 0.97 x 0.35				
	GLF1111-T1G7					2	54	2	13	✓	600			H	85			
	GLF81311					2	6.5	3	41	10	20			✓	2.3 ms	H	560	HBM : 6 CDM : 2
GLF1120H	1.1					5.5	1	52	1	10	✓			380	H	NA	HBM : 3 CDM : 2	-40 ~ 85
GLF1121H		1	✓	H	85													
GLF1121HN		1	✓	H	85													
GLF1121L		550	✓	L	85													
GLF1123H		1	✓	H	85													
True Reverse Current Blocking	GLF72100	1.5	5.5	2	37	0.45 uA	20	✓	570	H	NA	NA	HBM : 4 CDM : 2	-40 ~ 85	CSP 0.77 x 0.77 x 0.46			
	GLF72101			2	37	0.45 uA	20	✓	570	H	85							
	GLF72102*			2	37	0.45 uA	20	✓	570	L	NA							
	GLF72103			2	37	0.45 uA	20	✓	48	H	85							
	GLF72105			2	37	0.45 uA	20	✓	570	L	85							
	GLF72110			3	29	1.4 uA	24	✓	1.2 ms	H	NA							
	GLF72111			3	29	1.4 uA	24	✓	1.2 ms	H	85							
	GLF72112			3	29	1.4 uA	24	✓	18 us	H	NA							
	GLF72120			4	14	1.3 uA	56	✓	730	H	NA							
	GLF72122			4	14	1.3 uA	56	✓	2000	H	NA							
	GLF1200			2	54	0.47 uA	13	✓	600	H	NA							
	GLF1201			2	54	0.47 uA	13	✓	600	H	85							
	GLF82321	2	6.5	2	40	1.6 uA	20	✓	2.6 ms	H	550	HBM : 6 CDM : 2	-40 ~ 85	CSP 0.97 x 0.97 x 0.55				
	GLF1220H	1.5	5.5	1	52	500	10	✓	390	H	NA		HBM : 3 CDM : 2	CSP 0.97 x 1.47 x 0.55				
	GLF1221H	1.5		1	52	500	10	✓	390	H	85		CSP 0.67 x 0.67 x 0.425					
	Prog. Long t _R of V _{OUT}	GLF71431	1.5	5.5	7	10	10	55	Prog.	up to 34 ms	H		83	NA	HBM : 8 CDM : 2	CSP 1.27 x 1.67 x 0.55		

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 Channels	GLF1411	1.5	5.5	1	180	10	32	✓	390 @ SR= High 45 @ SR= GND	H	95	NA	HBM : 5 CDM : 2	- 40 ~ 85	DFN 1.5 x 1.5 -8L
	GLF1421	1.5	5.5	1	175	440	20	✓	465 @ SR= High 50 @ SR= GND	H	95	✓			DFN 1.5 x 1.5 -8L
3 Channels	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/ T0.35
Ultra-Low V _{IN}	GLF72510	0.8	3.6	3	27	80 nA @ 1.2 V 15 uA @ 3.6 V	6	✓	420	H	NA	✓**		HBM : 4 CDM : 2	CSP 0.97 x 0.97 x 0.55
	GLF72511			2	32	180 nA @ 1 V	630	✓	390	H	85		CSP 0.77 x 0.77 x 0.46		
	GLF72501			4	10	60 nA @ 0.8 V 6.5 uA @ 3.6 V	6.5	✓	800	H	NA		CSP 0.97 x 1.47 x 0.55		
	GLF72520			4	10	60 nA @ 0.8 V 6.5 uA @ 3.6 V	6.5	✓	280	H	85		CSP 0.97 x 1.47 x 0.55/ T0.35		
	GLF72524/T			3	52	50 nA @ 0.85 V 30 uA @ 3.6 V	6	✓	400	H	85		SOT23-5L		
	GLF1501-T1G7	0.85	4	9	5.6 uA @ 0.7 V 8.8 uA @ 3.6 V	14	✓	82	H	85	✓	HBM : 8 CDM : 2	- 40 ~ 105	CSP 0.97 x 1.47 x 0.55	
	GLF72525	0.7	4	13	2 uA @ 0.7 V 30 uA @ 5.5 V	30	✓	360	H	250	✓**		CSP 0.97 x 1.47 x 0.55		
	GLF1511	0.7	5.5	4	13	18 uA @ dual channel 15 uA @ single channel	8	✓	1.97ms	H	200	NA	HBM : 4 CDM : 2	- 40 ~ 85	DFN 2 x 3 -14L

*: 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 [uA]	I _{SD} Typ. @ V _{IN} Max [nA]	Slew Rate Control	Rise Time t _r Typ. [us]	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 ~ 85	CSP 0.97 x 1.47 x 0.55
	GLF74130			4.5	20	4	50	✓	790	✓	✓	NA	✓		CSP 1.27 x 1.67 x 0.55
	GLF4001-T2G7			2	68	4	20	✓	350	✓	✓	NA	✓		SOT23-6L
	GLF74139	2.0	5.5	4.5	20	4	30	✓	1 ms	✓	✓	NA	✓		CSP 1.27 x 1.67 x 0.55
	GLF74138	2.0	5.5	4.5	20	4	30	✓	573	✓	✓	NA	✓		CSP 1.27 x 1.67 x 0.55
	GLF4020-T2G7	2.5	6.5	2	92	4	6	✓	448	✓	✓	NA	✓		SOT23-6L
	GLF4028-T2G7	2.5	5.5	2	97 @ 5.5 V 105 @ 4.5 V	3	5	✓	340	✓	✓	NA	✓		SOT23-6L

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 [uA]	I _Q Typ. @ 3.6 V [uA]	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 ~ 85	CSP 0.97 x 0.97 x 0.55
	GLF73710		1.5	30	31	0.70	0.65	35	NA	2.88	0.55	3.6			
	GLF73910-AD01		1.5	34	36	0.79	0.72	70	4.35	2.8	0.6	3.6	0		
	GLF73910-AD01C		1.5	34	36	0.79	0.72	70	4.35	2.8	0.6	3.6			
	GLF73910-BD01		1.5	34	36	0.79	0.72	70	4.50	2.8	0.6	3.6	0.4		
	GLF73911-AD01		1.5	34	36	0.79	0.72	35	4.35**	2.8	0.6	3.6			
	GLF73912		1.5	53	57	1	0.9	7	4.35	2.8	0.5	3.6			

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

Battery Protection IC (Continued Table)

Product Type	Product Name	I _{OUT} Rating [A]	R _{ON} Typ. @ 4.2 V [mΩ]	I _Q Typ. @ 3.6 V [uA]	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 _{DC} [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 ~ 85	CSP 0.97 x 0.97 x 0.55
Full Protection	GLF73610 -CE23C	1.5	62 @3.7 V	1.48 @3.7 V	8	4.45	2.8	330	76	250	3.6	✓	0	-40 ~ 85	CSP 0.97 x 0.97 x 0.55
	GLF73610 -DE23C					4.275									
	GLF73610 -EE23C**					4.375									
	GLF73610 -FE23C**					4.425									
	GLF73610 -GE23C					4.475									
GLF73610 -HE23C	4.525														

*: In Dev.

**: On Request

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 _Q Typ. @ V _{IN} Max [uA]	I _{SD} 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 ~2.2 A	6.6	✓	H	NA	140	HBM : 8 CDM : 2	-40 ~ 85	SOT23-5L				
	GLF2311A-T1G7										300				SOT23-5L				
	GLF2310A-T2G7										NA				SOT23-6L				
	GLF2311A-T2G7										300				SOT23-6L				
	GLF2311B-T1G7						300	SOT23-5L											
	GLF2313B-T1G7						300	SOT23-5L											
	GLF2321B-T1G7						1.8	SOT23-5L											
	GLF2331B-T1G7						2.6	53		18	35				Fixed 1.3 A	✓	H	300	SOT23-5L
	GLF2351B-T1G7						2.8	40		17	60				Fixed 2.55 A	4.6	H	300	SOT23-5L
	GLF2351A-S3G7						3	32		19	63				40 mA~2.8 A	✓	H	300	CSP 0.97 x 1.47 x 0.55

System Power Reset and 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]	I _{SD} 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 ~ 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	

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]	I _{SD} 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	6	7	85	✓	1	3	NA	6	-40 ~ 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/
	GLF76521 / T	1.8		2	31	3	7	85	✓	1	0.3	0.8	1.8		0.35

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]	WLCSP Package Size
Linear Regulator	GLF79110-18AS	5.5	1.8	2.5	0.16	0.002	150	52	250	0.4	4	H	HBM : 6 CDM : 2	- 40 ~ 85	CSP 0.97 x 0.97 x 0.55
	GLF79110-28AS		2.8	2.5	0.16	0.002	150	60	250	0.4	4	H			
	GLF79110-30AS		3.0	2.5	0.1	0.002	150	62	250	0.4	4	H			

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. [us]	EN Active	Output Discharge [Ω]	Reverse Current Blocking	ESD [kV]	Operating Temperature [°C]	Package Type
Nano-Current Consumed	GLF1111Q-T1G7	1.5	5.5	2	60	2	13	✓	400	H	85	NA	HBM : 4 CDM : 2	- 40 ~ 125	SOT23-5L
	GLF1110Q-T1G7*	1.5	5.5	2	60	2	13	✓	400	H	NA	NA			
True Reverse Current Blocking	GLF1200Q-T1G7	1.5	5.5	2	60	480	25	✓	600	H	NA	✓	HBM : 4 CDM : 2	- 40 ~ 125	SOT23-5L
	GLF1201Q-T1G7*	1.5	5.5	2	60	480	25	✓	600	H	85	✓			

* : In Dev.