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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



SLA7027MU/SLA7024M/SLA7026M 2-Phase/1-2 Phase Excitation

Absolute Maximum Ratings

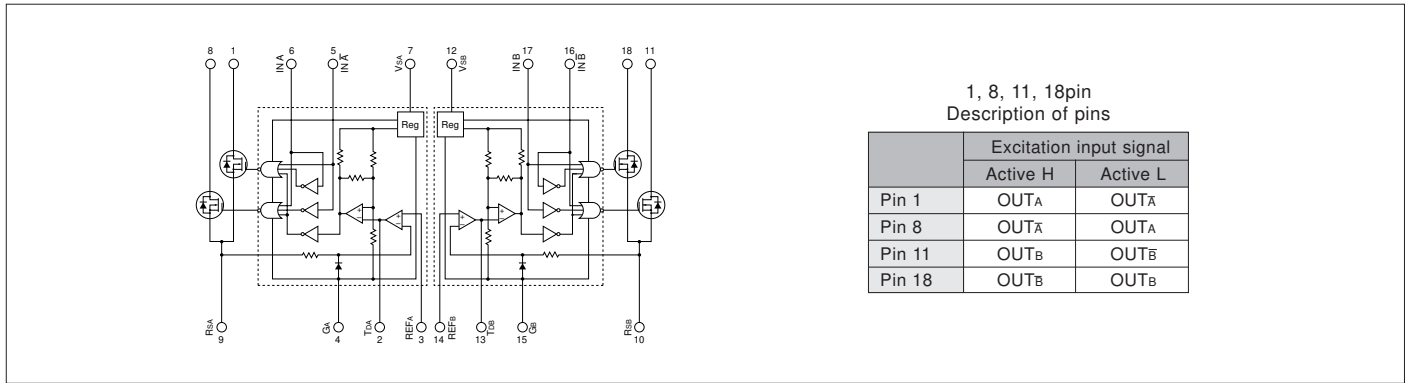
(T_a=25°C)

Parameter	Symbol	Ratings			Unit
		SLA7027MU	SLA7024M	SLA7026M	
Motor Supply Voltage	V _{CC}	46			V
FET Drain-Source Voltage	V _{DSS}	100			V
Control Supply Voltage	V _S	46			V
Input Voltage	V _{IN}	7			V
Reference Voltage	V _{REF}	2			V
Output Current	I _O	1	1.5	3	A
Power Dissipation	P _{D1}	4.5 (Without Heatsink)			W
	P _{D2}	35 (T _C =25°C)			W
Channel Temperature	T _{ch}	+150			°C
Storage Temperature	T _{stg}	-40 to +150			°C

Electrical Characteristics

Parameter	Symbol	Ratings									Unit
		SLA7027MU			SLA7024M			SLA7026M			
		min.	typ.	max.	min.	typ.	max.	min.	typ.	max.	
Control Supply Current	I _S		10	15		10	15		10	15	mA
	Condition	V _S =44V			V _S =44V			V _S =44V			
Control Supply Voltage	V _S	10	24	44	10	24	44	10	24	44	V
FET Drain-Source Voltage	V _{DSS}	100			100			100			V
	Condition	V _S =44V, I _{DSS} =250μA			V _S =44V, I _{DSS} =250μA			V _S =44V, I _{DSS} =250μA			
FET ON Voltage	V _{DS}			0.85			0.6			0.85	V
	Condition	I _D =1A, V _S =14V			I _D =1A, V _S =14V			I _D =3A, V _S =14V			
FET Drain Leakage Current	I _{DSS}			4			4			4	mA
	Condition	V _{DSS} =100V, V _S =44V			V _{DSS} =100V, V _S =44V			V _{DSS} =100V, V _S =44V			
FET Diode Forward Voltage	V _{SD}			1.2			1.1			2.3	V
	Condition	I _D =1A			I _D =1A			I _D =3A			
TTL Input Current	I _{IH}			40			40			40	μA
	Condition	V _{IH} =2.4V, V _S =44V			V _{IH} =2.4V, V _S =44V			V _{IH} =2.4V, V _S =44V			
	I _{IL}			-0.8			-0.8			-0.8	
TTL Input Voltage (Active High)	V _{IH}	2			2			2			V
	Condition	I _D =1A			I _D =1A			I _D =3A			
	V _{IL}			0.8			0.8			0.8	
TTL Input Voltage (Active Low)	V _{IH}	2			2			2			V
	Condition	V _{DSS} =100V			V _{DSS} =100V			V _{DSS} =100V			
	V _{IL}			0.8			0.8			0.8	
Switching Time	T _r		0.5			0.5			0.5		μs
	Condition	V _S =24V, I _D =0.8A			V _S =24V, I _D =1A			V _S =24V, I _D =1A			
	T _{sig}		0.7			0.7			0.7		
	Condition	V _S =24V, I _D =0.8A			V _S =24V, I _D =1A			V _S =24V, I _D =1A			
	T _f		0.1			0.1			0.1		
Condition	V _S =24V, I _D =0.8A			V _S =24V, I _D =1A			V _S =24V, I _D =1A				

Internal Block Diagram



Typical Connection Diagram (Recommended component values)

Active High

Excitation signal time chart
2-phase excitation

clock	0	1	2	3	0	1
IN _A	H	L	L	H	H	L
IN _A [̄]	L	H	H	L	L	H
IN _B	H	H	L	L	H	H
IN _B [̄]	L	L	H	H	L	L

1-2 phase excitation

clock	0	1	2	3	4	5	6	7	0	1	2	3
IN _A	H	H	L	L	L	L	H	H	H	L	L	L
IN _A [̄]	L	L	L	H	H	H	L	L	L	L	L	H
IN _B	L	H	H	H	L	L	L	L	L	H	H	H
IN _B [̄]	L	L	L	L	L	H	H	H	L	L	L	L

Active Low

Excitation signal time chart
2-phase excitation

clock	0	1	2	3	0	1
IN _A	L	H	H	L	L	H
IN _A [̄]	H	L	L	H	H	L
IN _B	L	L	H	H	L	L
IN _B [̄]	H	H	L	L	H	H

1-2 phase excitation

clock	0	1	2	3	4	5	6	7	0	1	2	3
IN _A	L	L	H	H	H	H	L	L	L	L	H	H
IN _A [̄]	H	H	H	L	L	L	H	H	H	H	L	L
IN _B	H	L	L	L	H	H	H	H	L	L	L	L
IN _B [̄]	H	H	H	H	L	L	L	L	H	H	H	H

Component values:

- r1 : 510Ω
- r2 : 100Ω (VR)
- r3 : 47kΩ
- r4 : 47kΩ
- r5 : 2.4kΩ
- r6 : 2.4kΩ
- C1 : 470pF
- C2 : 470pF
- C3 : 2200pF
- C4 : 2200pF
- R_s : 1Ω typ (7024M)
- R_s : 0.68Ω typ (7026M)
- R_s : 1.8Ω typ (7027MU)

External Dimensions (ZIP18 with Fin [SLA18Pin])

(Unit : mm)

