

SLA7027MU/SLA7024M/SLA7026M

2-Phase/1-2 Phase Excitation

Absolute Maximum Ratings

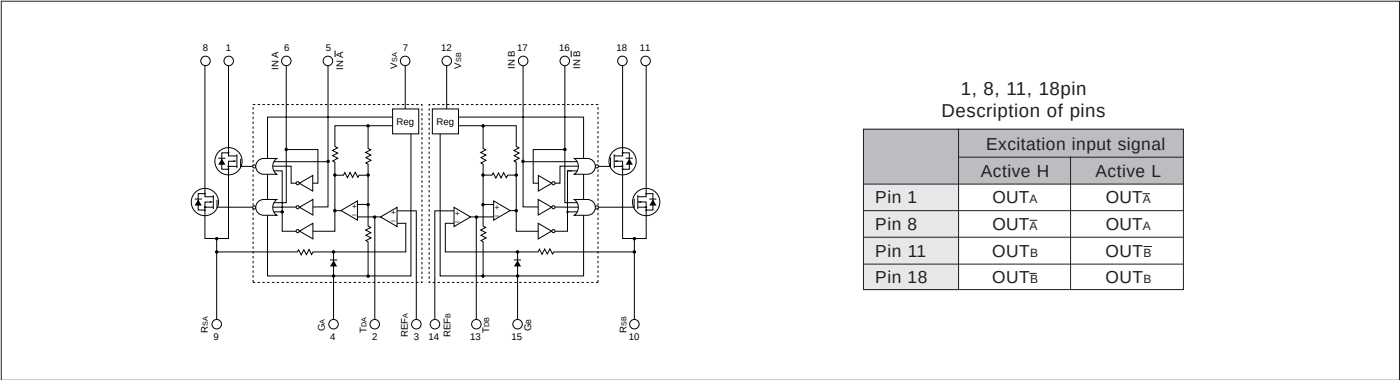
(Ta=25°C)

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

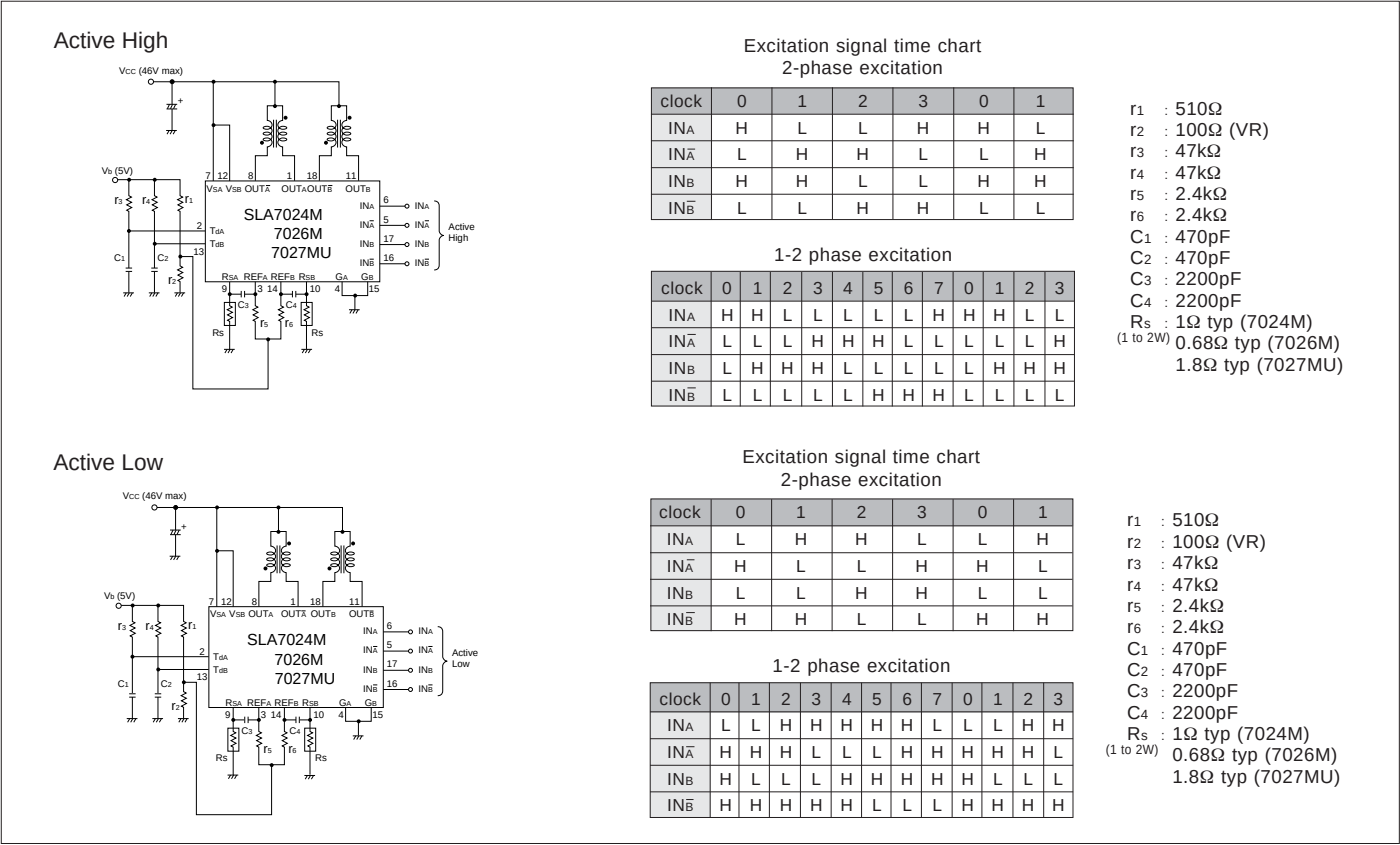
Electrical Characteristics

Parameter		Symbol	Ratings									Unit		
			SLA7027MU			SLA7024M			SLA7026M					
			min.	typ.	max.	min.	typ.	max.	min.	typ.	max.			
DC characteristics	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	mA
				Condition	V _{IL} =0.4V, V _S =44V			V _{IL} =0.4V, V _S =44V			V _{IL} =0.4V, V _S =44V			
	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		
			Condition	V _{DSS} =100V			V _{DSS} =100V			V _{DSS} =100V				
	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		
			Condition	I _D =1A			I _D =1A			I _D =3A				
AC characteristics	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)



External Dimensions (ZIP18 with Fin [SLA18Pin])

(Unit : mm)

