

SLA7022MU/SLA7029M/SMA7022MU/SMA7029M 2-Phase Excitation

Absolute Maximum Ratings

(T_a=25°C)

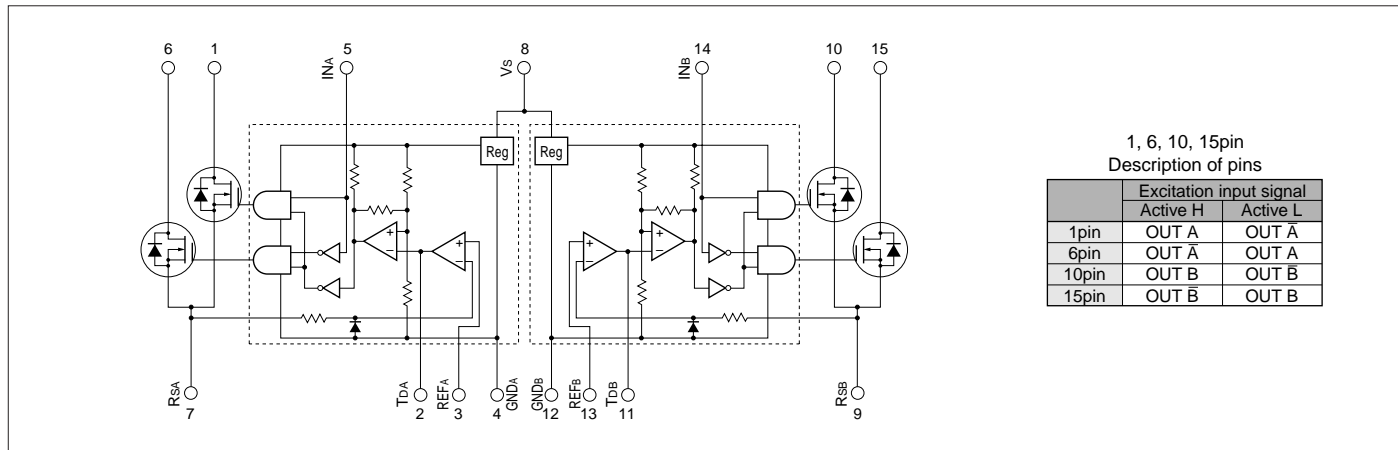
Parameter	Symbol	Ratings				Unit
		SLA7022MU	SLA7029M	SMA7022MU	SMA7029M	
Motor Supply Voltage	V _{CC}	46				V
FET Drain-Source Voltage	V _{DSS}	100				V
Control Supply Voltage	V _S	46				V
TTL Input Voltage	V _{IN}	7				V
Reference Voltage	V _{REF}	2				V
Output Current	I _O	1	1.5	1	1.5	A
Power Dissipation	P _{D1}	4.5 (Without Heatsink)		4.0 (Without Heatsink)		W
	P _{D2}	35 (T _c =25°C)				28 (T _c =25°C)
Channel Temperature	T _{Ch}	+150				°C
Storage Temperature	T _{stg}	-40 to +150				°C

Electrical Characteristics

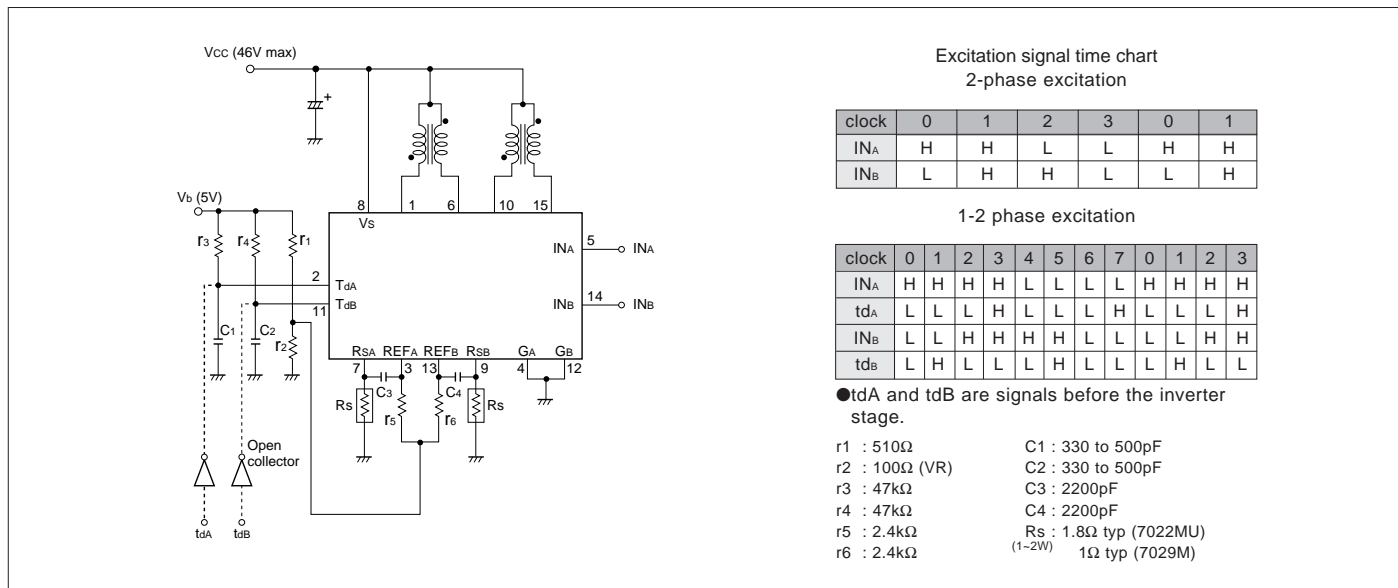
(T_a=25°C)

Parameter	Symbol	Ratings												Unit
		SLA7022MU			SLA7029M			SMA7022MU			SMA7029M			
		min.	typ.	max.	min.	typ.	max.	min.	typ.	max.	min.	typ.	max.	
Control Supply Current	I _S	10			15			10			15			mA
	Condition	V _S =44V			V _S =44V			V _S =44V			V _S =44V			
Control Supply Voltage	V _S	10	24	44	10	24	44	10	24	44	10	24	44	V
FET Drain-Source Voltage	V _{DSS}	100			100			100			100			V
	Condition	V _S =44V, I _{DSS} =250μA			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			0.6			V
	Condition	I _D =1A, V _S =14V			I _D =1A, V _S =14V			I _D =1A, V _S =14V			I _D =1A, V _S =14V			
FET Drain Leakage Current	I _{DSS}	4			4			4			4			mA
	Condition	V _{DSS} =100V, V _S =44V			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			1.2			1.1			V
	Condition	I _D =1A			I _D =1A			I _D =1A			I _D =1A			
TTL Input Current	I _{IH}	40			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			V _{IH} =2.4V, V _S =44V			
	I _{IL}	-0.8			-0.8			-0.8			-0.8			
TTL Input Voltage (Active High)	Condition	V _{IH} =0.4V, V _S =44V			V _{IH} =0.4V, V _S =44V			V _{IH} =0.4V, V _S =44V			V _{IH} =0.4V, V _S =44V			mA
	V _{IH}	2			2			2			2			
	Condition	I _D =1A			I _D =1A			I _D =1A			I _D =1A			
TTL Input Voltage (Active Low)	V _{IL}		0.8			0.8			0.8			0.8		V
	Condition	V _{DSS} =100V			V _{DSS} =100V			V _{DSS} =100V			V _{DSS} =100V			
	Condition	I _D =1A			I _D =1A			I _D =1A			I _D =1A			
Switching Time	T _r	0.5			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 =0.8A			V _S =24V, I _D =1A			
	T _{sig}	0.7			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 =0.8A			V _S =24V, I _D =1A			
	T _f	0.1			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 =0.8A			V _S =24V, I _D =1A				

Internal Block Diagram



Typical Connection Diagram (Recommended component values)



External Dimensions (ZIP15 with Fin [SLA15Pin] /ZIP15[SMA15Pin])

(Unit:mm)

