

SLA7022MU/SLA7029M/SMA7022MU/SMA7029M 2-Phase Excitation

■ Absolute Maximum Ratings

(T_a=25°C)

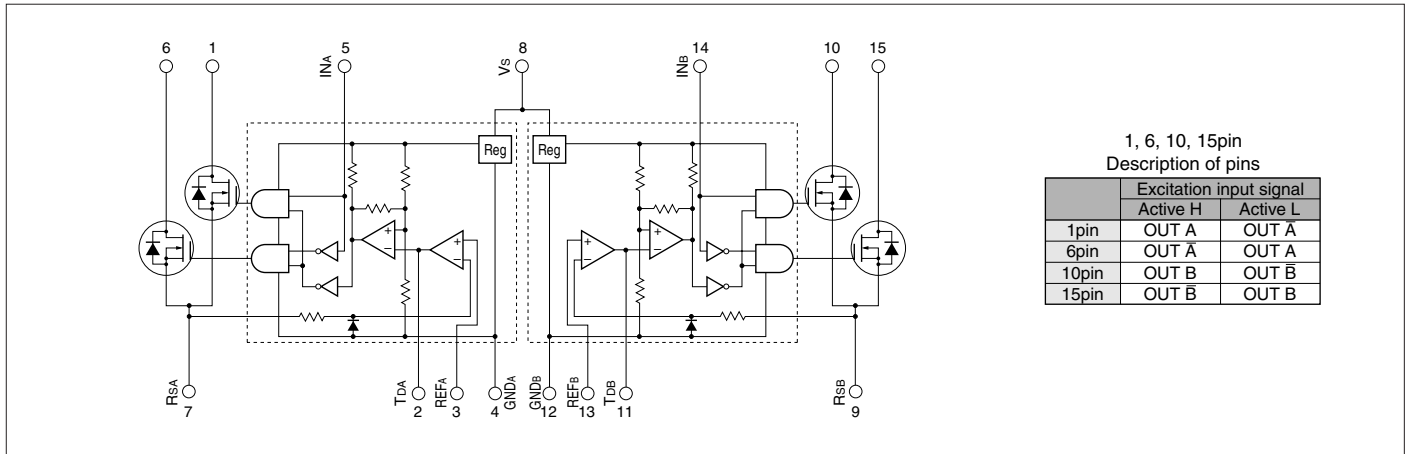
Parameter	Symbol	Ratings				Unit
		SLA7022MU	SLA7029M	SMA7022MU	SMA7029M	
Motor Supply Voltage	V _{CC}	46				V
FET Drain-Source Voltage	V _{DSS}	100				V
Control Supply Voltage	V _S	46				V
TTL Input Voltage	V _{IN}	7				V
Reference Voltage	V _{REF}	2				V
Output Current	I _O	1	1.5	1	1.5	A
Power Dissipation	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

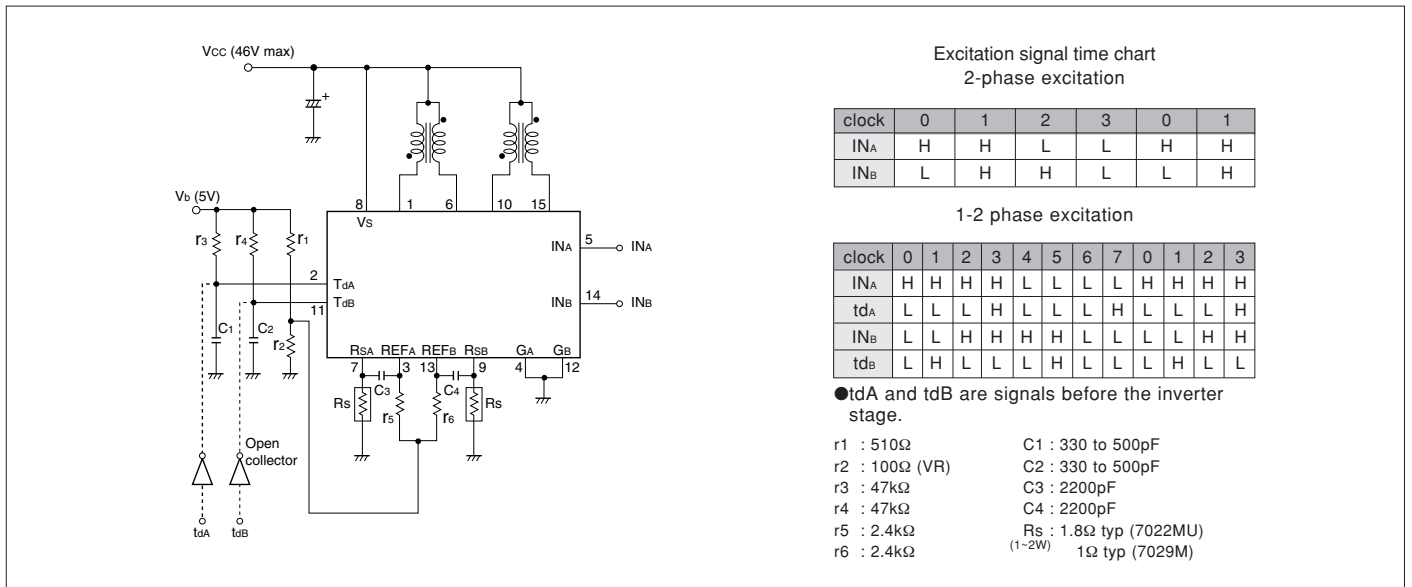
(T_a=25°C)

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		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
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
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		mA
TTL Input Voltage (Active High)	Condition	V _{IL} =0.4V, V _S =44V			V _{IL} =0.4V, V _S =44V			V _{IL} =0.4V, V _S =44V			V _{IL} =0.4V, V _S =44V			
	V _{IH}	2			2			2			2			V
	Condition	I _D =1A			I _D =1A			I _D =1A			I _D =1A			
V _{IL}		0.8			0.8			0.8			0.8			
TTL Input Voltage (Active Low)	Condition	V _{DSS} =100V			V _{DSS} =100V			V _{DSS} =100V			V _{DSS} =100V			
	V _{IH}	2			2			2			2			V
	Condition	V _{DSS} =100V			V _{DSS} =100V			V _{DSS} =100V			V _{DSS} =100V			
V _{IL}		0.8			0.8			0.8			0.8			
Switching Time	Condition	I _D =1A			I _D =1A			I _D =1A			I _D =1A			
	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 _{stg}		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)

