

SLA7029M/SMA7022MU/SMA7029M

2-Phase Excitation

■ Absolute Maximum Ratings

(T_a=25°C)

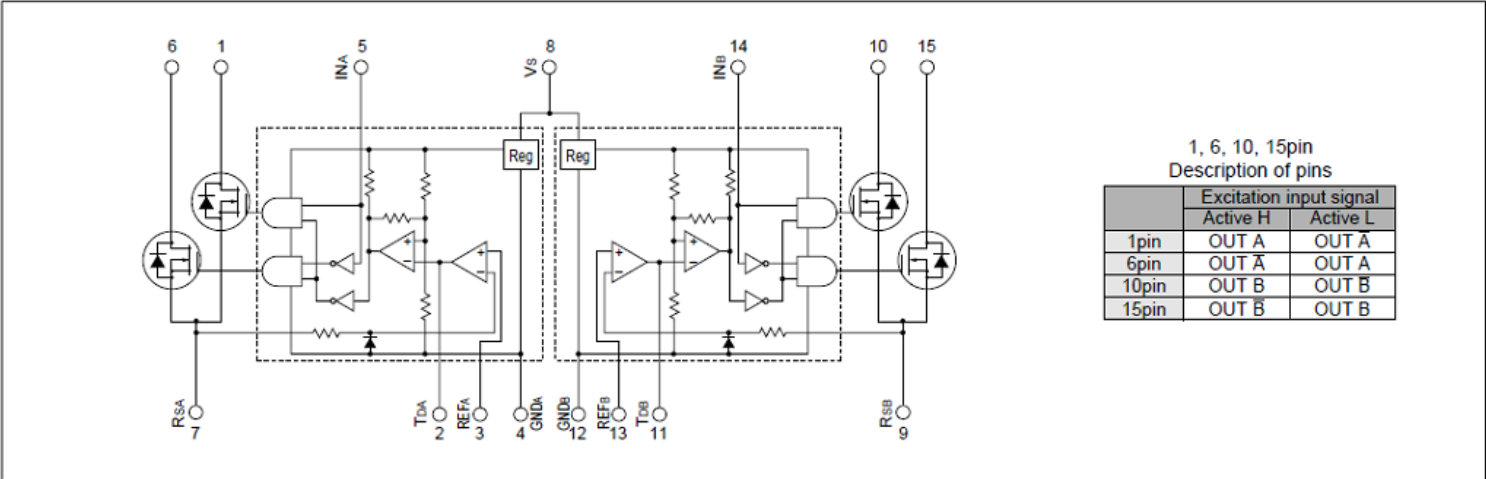
Parameter	Symbol	Ratings			Unit
		SLA7029M	SMA7022MU	SMA7029M	
Motor Supply Voltage	V _{CC}	46			V
FET Drain-Source Voltage	V _{DSS}	100			V
Control Supply Voltage	V _S	46			V
TTL Input Voltage	V _{IN}	7			V
Reference Voltage	V _{REF}	2			V
Output Current	I _O	1.5	1	1.5	A
Power Dissipation	P _{DI}	4.5 (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

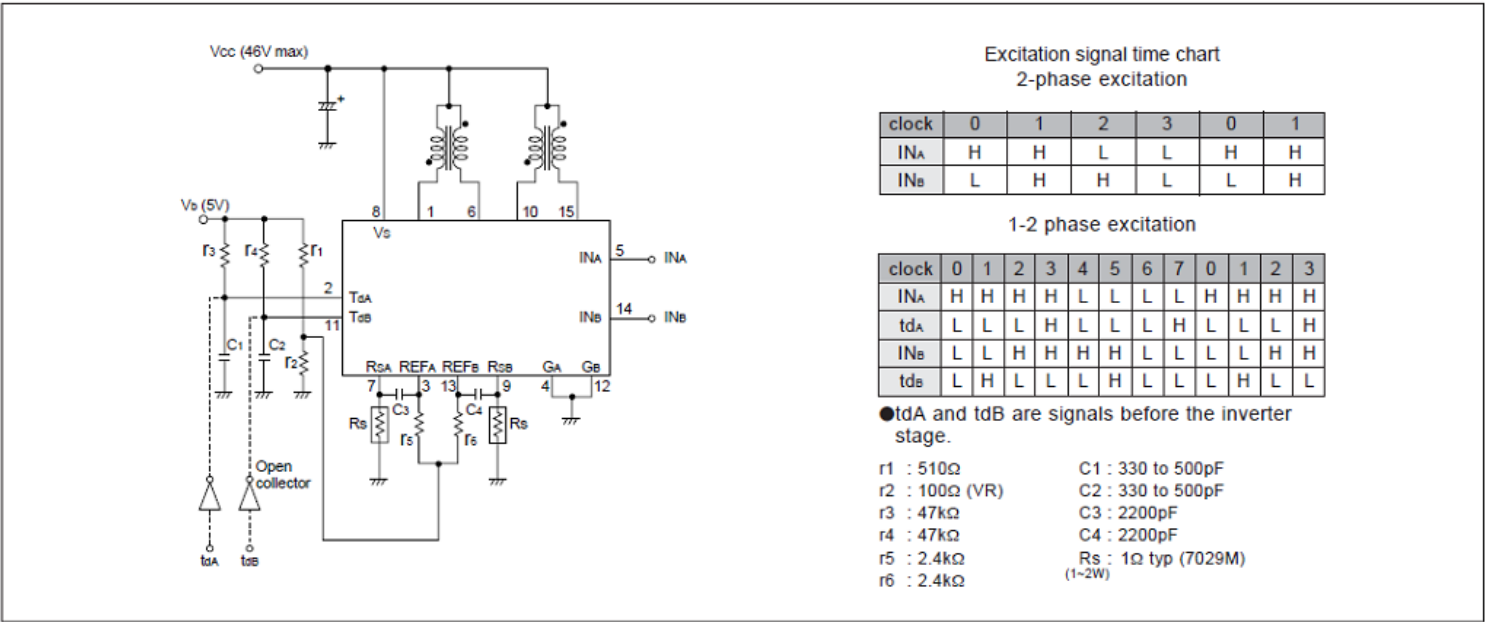
(T_a=25°C)

Parameter		Symbol	Ratings									Unit
			SLA7029M			SMA7022MU			SMA7029M			
			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 _{OSS} =250μA			V _S =44V, I _{OSS} =250μA			V _S =44V, I _{OSS} =250μA			
	FET ON Voltage	V _{DS}			0.6			0.85			0.6	V
		Condition	I _O =1A, V _S =14V			I _O =1A, V _S =14V			I _O =1A, V _S =14V			
	FET Drain Leakage Current	I _{OSS}			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}			1.1			1.2			1.1	V
		Condition	I _O =1A			I _O =1A			I _O =1A			
	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 _O =1A			I _O =1A			I _O =1A			
		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 _O =1A			I _O =1A			I _O =1A			
	AC Characteristics	Switching Time	T _r		0.5			0.5			0.5	μs
Condition			V _S =24V, I _O =1A			V _S =24V, I _O =0.8A			V _S =24V, I _O =1A			
T _{stg}				0.7			0.7			0.7		
Condition			V _S =24V, I _O =1A			V _S =24V, I _O =0.8A			V _S =24V, I _O =1A			
T _f				0.1			0.1			0.1		
Condition			V _S =24V, I _O =1A			V _S =24V, I _O =0.8A			V _S =24V, I _O =1A			

Internal Block Diagram



Typical Connection Diagram (Recommended component values)



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

(Unit:mm)

