



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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!



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SLA7029M/SMA7022MU/SMA7029M

2-Phase Excitation

■ Absolute Maximum Ratings

(T_a=25°C)

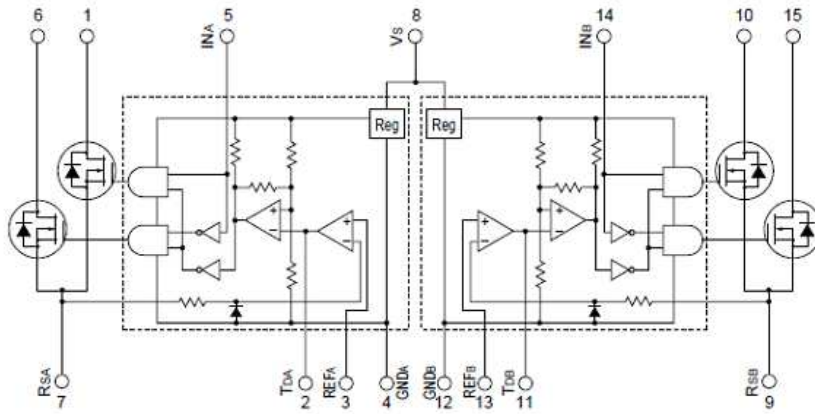
Parameter	Symbol	Ratings			Unit
		SLA7029M	SMA7022MU	SMA7029M	
Motor Supply Voltage	V _{CC}	46			V
FET Drain-Source Voltage	V _{DSS}	100			V
Control Supply Voltage	V _S	46			V
TTL Input Voltage	V _{IN}	7			V
Reference Voltage	V _{REF}	2			V
Output Current	I _O	1.5	1	1.5	A
Power Dissipation	P _{DI}	4.5 (Without Heatsink)		4.0 (Without Heatsink)	W
	P _{DI}	35 (T _C =25°C)		28 (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.	
Control Supply Current	I _O		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 _{OSS} =100V, V _S =44V			V _{OSS} =100V, V _S =44V			V _{OSS} =100V, V _S =44V			
FET Diode Forward Voltage	V _{DS}			1.1			1.2			1.1	V
	Condition	I _O =1A			I _O =1A			I _O =1A			
TTL Input Current	I _{IN}			40			40			40	μA
	Condition	V _{IN} =2.4V, V _S =44V			V _{IN} =2.4V, V _S =44V			V _{IN} =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 _{IN}	2			2			2			V
	Condition	I _O =1A			I _O =1A			I _O =1A			
	V _{IL}			0.8			0.8			0.8	
TTL Input Voltage (Active Low)	V _{IN}	2			2			2			V
	Condition	V _{OSS} =100V			V _{OSS} =100V			V _{OSS} =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 _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				

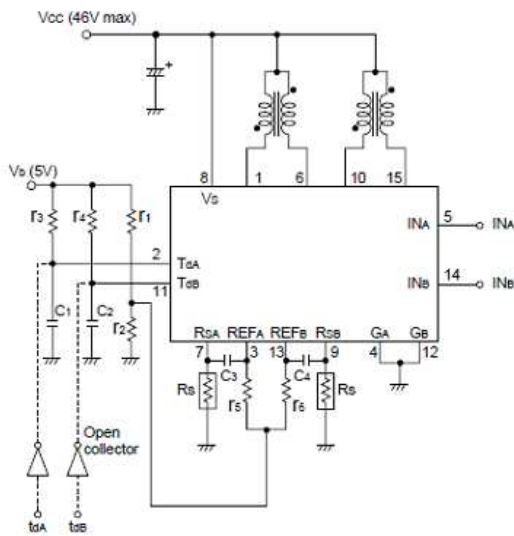
Internal Block Diagram



1, 6, 10, 15pin
Description of pins

	Excitation input signal	
	Active H	Active L
1pin	OUT A	OUT A
6pin	OUT A	OUT A
10pin	OUT B	OUT B
15pin	OUT B	OUT B

Typical Connection Diagram (Recommended component values)



Excitation signal time chart
2-phase excitation

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

1-2 phase excitation

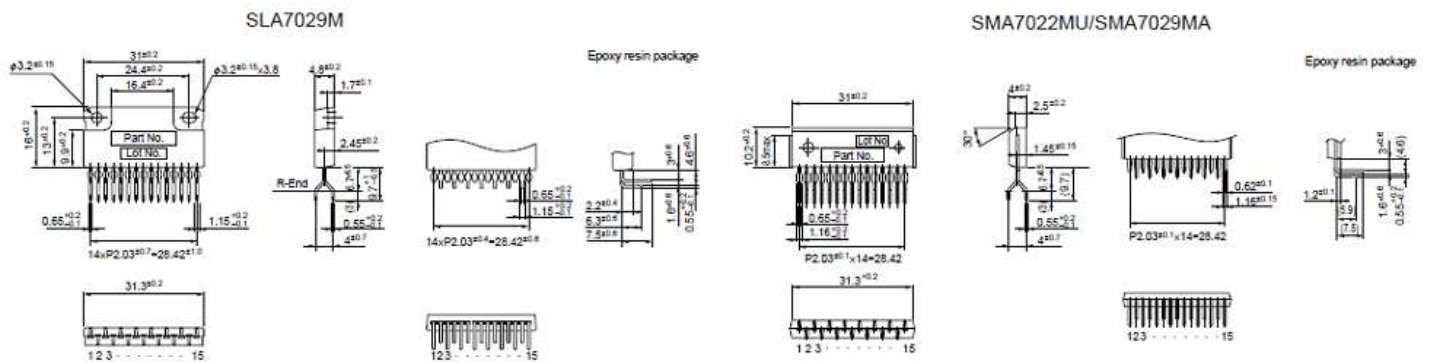
clock	0	1	2	3	4	5	6	7	0	1	2	3
IN _A	H	H	H	H	L	L	L	L	H	H	H	H
td _A	L	L	L	H	L	L	L	H	L	L	L	H
IN _B	L	L	H	H	H	H	L	L	L	L	H	H
td _B	L	H	L	L	L	H	L	L	L	H	L	L

●td_A and td_B are signals before the inverter stage.

- r1 : 510Ω
- r2 : 100Ω (VR)
- r3 : 47kΩ
- r4 : 47kΩ
- r5 : 2.4kΩ
- r6 : 2.4kΩ
- C1 : 330 to 500pF
- C2 : 330 to 500pF
- C3 : 2200pF
- C4 : 2200pF
- Rs : 1Ω typ (7029M) (1-2W)

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

(Unit:mm)



Forming No. No.853

Forming No. No.855

Forming No. No.1054

Forming No. No.1055

Product Mass : Approx.6g

Product Mass : Approx.4g