

Unipolar Driver ICs

SLA7020M SLA7021M WITH MOSFETs

■ Ratings

Absolute maximum ratings	Motor supply Voltage (V)	FET output breakdown voltage (V)	Control voltage (V)	TTL input voltage (V)	Reference voltage (V)	Output current (A)	Power dissipation (W)	Channel temperature (°C)	Storage temperature (°C)
Type No.	V _{CC}	V _{DS}	V _S	V _{IN}	V _{REF}	I _O	P _D	T _{ch}	T _{stg}
SLA7020M	46	100	32	7	2	1.5	4.5 (No Fin)	150	-40 to +150
SLA7021M						3			

■ Characteristics (1) DC Characteristics

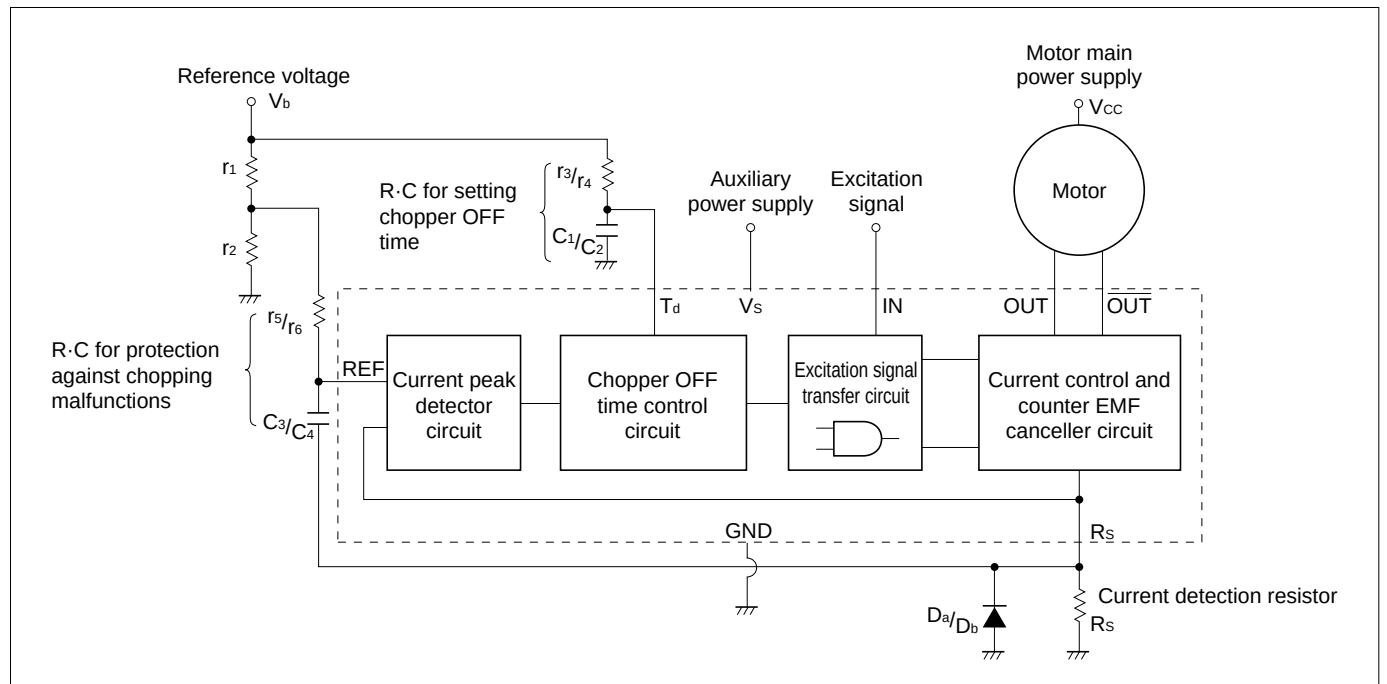
Electrical characteristics	Control current (mA)			Control voltage (V)			FET turn-on voltage (V)			FET drain leak current (mA)			TTL input current (μA)			TTL input current (mA)			TTL input voltage (OUT) (V)			TTL input voltage (V)			TTL input voltage (OUT) (V)			TTL input voltage (V)		
	V _S = 30V						(7020M) I _D = 1A, V _S = 14V (7021M) I _D = 3A, V _S = 14V			V _{DSS} = 100V V _S = 30V			V _{IH} = 2.4V V _S = 30V			V _{IL} = 0.4V V _S = 30V			I _D = 1A			V _{DSS} = 100V			V _{DSS} = 100V			I _D = 1A		
	I _S			V _S			V _{DS}			I _{DSS}			I _{IH}			I _{IL}			V _{IH}			V _{IL}			V _{IH}			V _{IL}		
Type No.	min	typ	max	min	typ	max	min	typ	max	min	typ	max	min	typ	max	min	typ	max	min	typ	max	min	typ	max	min	typ	max	min	typ	max
SLA7020M	5.5	10	15	10	19	30			0.6			4			40			-0.8	2.0					0.8	2.0					0.8
SLA7021M									0.85																					

(2) AC Characteristics

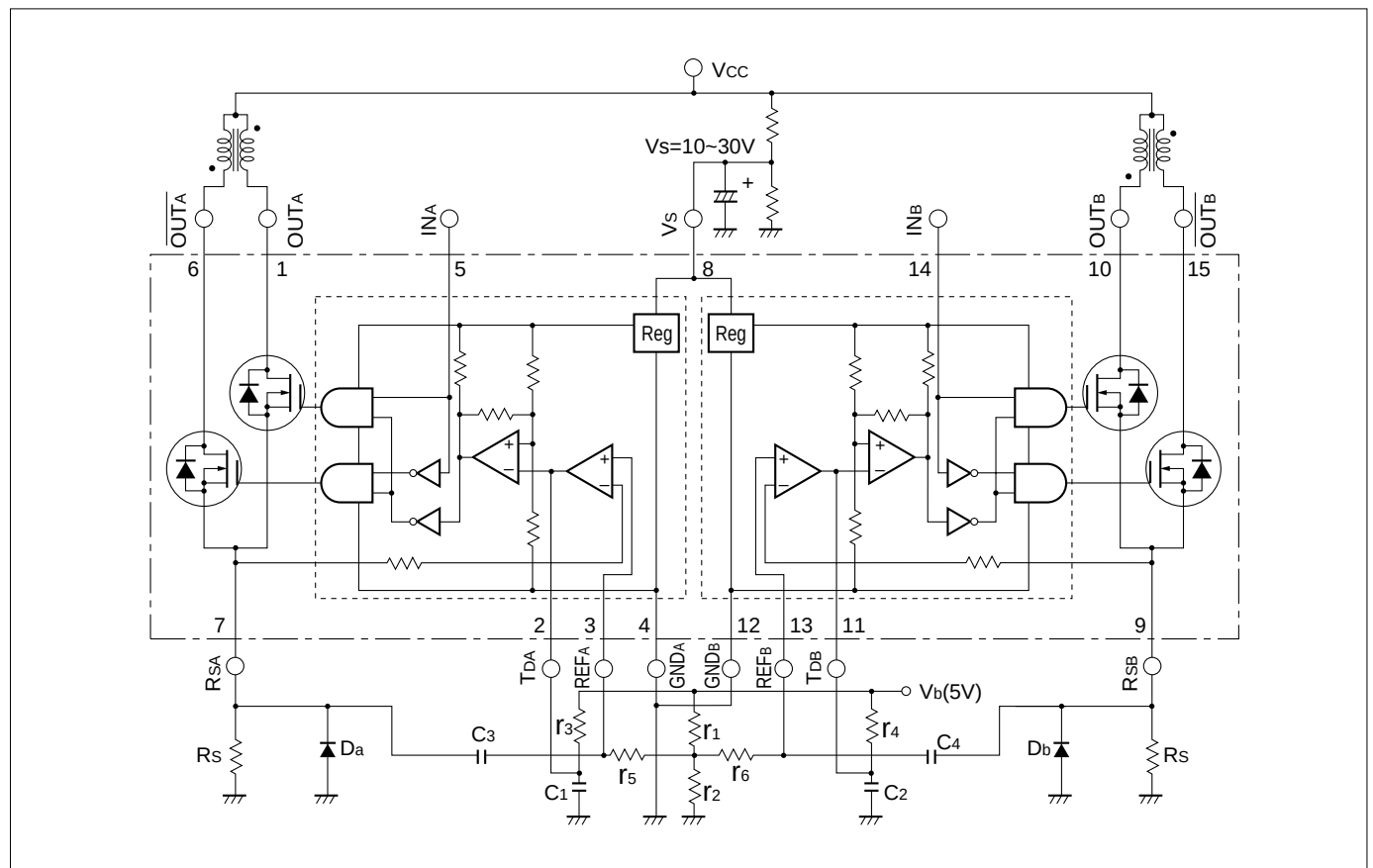
Electrical characteristics	FET diode forward voltage (V)			Switching time (μs)											
	(7020M) I _{SD} = 1A (7021M) I _{SD} = 3A			V _S = 24V I _D = 1A											
	V _{SD}			T _r			T _{stg}			T _f					
Type No.	min	typ	max	min	typ	max	min	typ	max	min	typ	max	min	typ	max
SLA7020M			1.1												
SLA7021M			2.3		0.5			0.7			0.1				

SLA7020M and SLA7021M

■ Block diagram

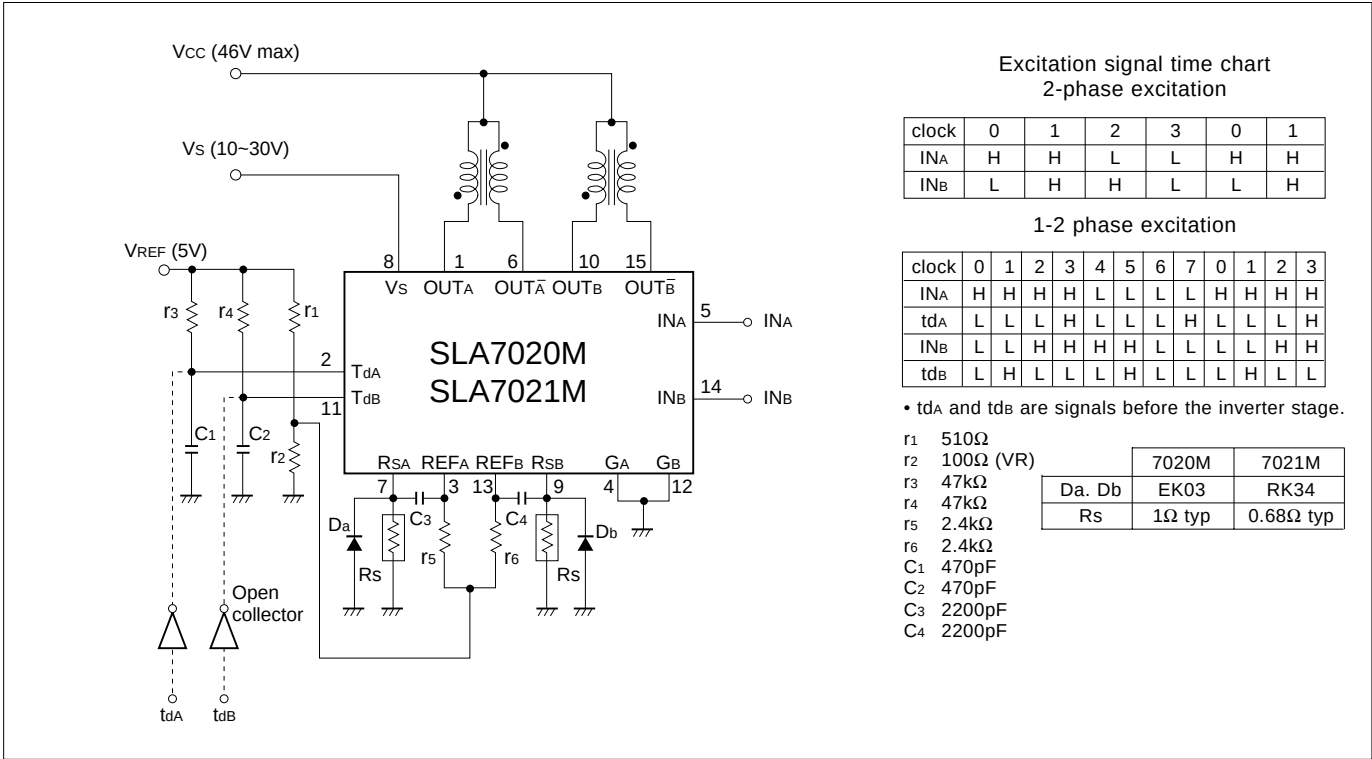


■ Internal circuit diagram (enclosed with chain line)



SLA7020M and SLA7021M

■ Diagram of standard external circuit (Recommended circuit constants)



■ External dimensions

(Unit: mm)

