Stepper Motor Driver SLA4708M

Features

- High output breakdown voltage of 50V
- Affluent output current of 1.5A
- Built-in overcurrent, overvoltage and thermal protection circuits
- Low standby current of 50μA

Absolute Maximum Ratings

(Ta=25ºC)

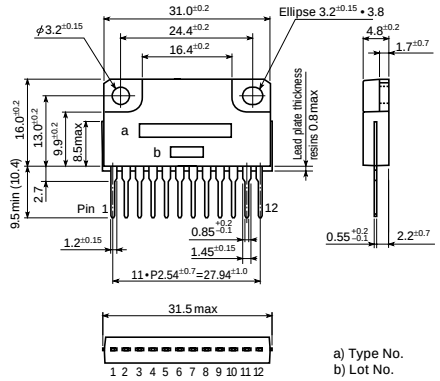
Parameter	Symbol	Ratings	Unit	Conditions
Power supply voltage	V_S	35	V	
Breakdown voltage	V_O	50	V	
Input voltage	V_{IN}	–0.3 to +7	V	
Output current	$I_{O, AVE}$	1.5	A	
Diagnostic output sink current	I_{DIAG}	10	mA	
Diagnostic output withstand voltage	$I_{DIAG. H}$	7	V	
Operating temperature	Top	–40 to +85	ºC	
Storage temperature	Tstg	–40 to +150	ºC	
Power Dissipation	P_D	3.5 (Ta=25ºC)	W	Without heatsink

Electrical Characteristics

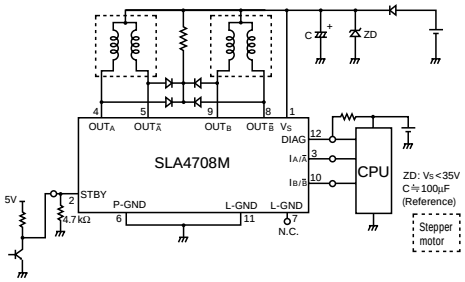
(V_S=12V, Ta=25ºC)

Parameter	Symbol	Ratings			Unit	Conditions
		min	typ	max		
Input voltage ($I_{A/\overline{A}}$, $I_{B/\overline{B}}$ standby)	V_{IL}			0.8	V	
	V_{IH}	2.4			V	
Input current	I_{IL}			–0.8	mA	V_{IN}=0.4V
	I_{IH}			50	μA	V_{IN}=2.4V
Output saturation voltage	$V_{O.STA}$			1.3	V	I_O=1A, Ta=25ºC
	$V_{O.STA}$			1.5	V	I_O=1.5A, Ta=25ºC
Output leak current	$I_{O.LEAK}$			100	μA	V_O=16V
Overcurrent detection	I_{SD}	1.8			A	
Overvoltage detection	V_{SD}	27.5			V	
Saturation voltage of diagnostic output	$V_{DIAG.L}$			0.3	V	I_{DIAG}=5mA
Standby current	I_{STB}		50		μA	V_S=12V

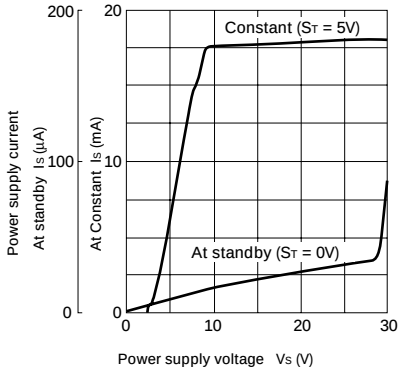
External Dimensions (unit: mm)



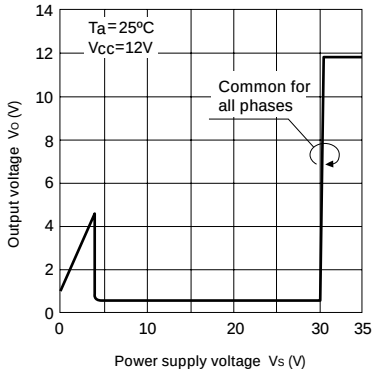
Standard Circuit Diagram



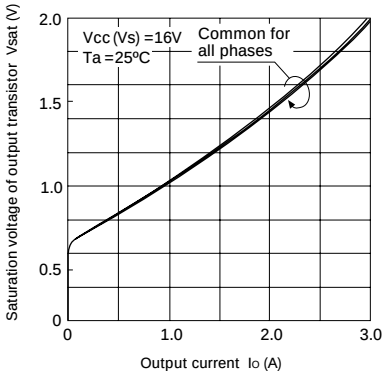
■ Power Supply Current Characteristics



■ Overvoltage Protection Characteristics



■ Saturation Voltage of Output Transistor Characteristics



■ Thermal Protection Characteristics

