

# 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 50 $\mu$ A

## Absolute Maximum Ratings

(Ta=25°C)

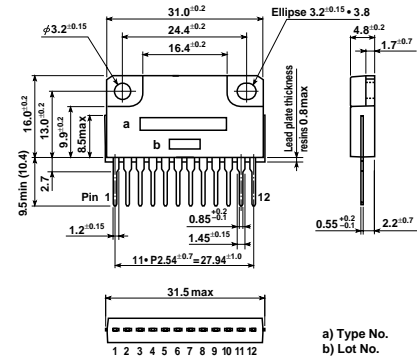
Parameter	Symbol	Ratings	Unit	Conditions
Power supply voltage	V <sub>S</sub>	35	V	
Breakdown voltage	V <sub>O</sub>	50	V	
Input voltage	V <sub>IN</sub>	-0.3 to +7	V	
Output current	I <sub>O,AVE</sub>	1.5	A	
Diagnostic output sink current	I <sub>DIAG</sub>	10	mA	
Diagnostic output withstand voltage	I <sub>DIAG,H</sub>	7	V	
Operating temperature	T <sub>op</sub>	-40 to +85	°C	
Storage temperature	T <sub>stg</sub>	-40 to +150	°C	
Power Dissipation	P <sub>D</sub>	3.5 (Ta=25°C)	W	Without heatsink

## Electrical Characteristics

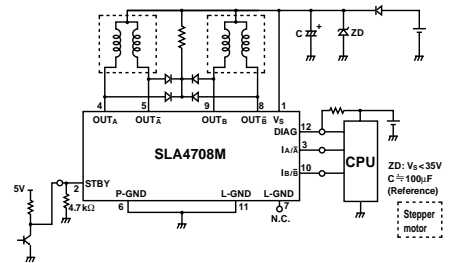
(V<sub>S</sub>=12V, Ta=25°C)

Parameter	Symbol	Ratings			Unit	Conditions
		min	typ	max		
Input voltage (I <sub>A</sub> /I <sub>B</sub> standby)	V <sub>IL</sub>			0.8	V	
	V <sub>IH</sub>	2.4			V	
Input current	I <sub>IL</sub>			-0.8	mA	V <sub>IN</sub> =0.4V
	I <sub>IH</sub>			50	$\mu$ A	V <sub>IN</sub> =2.4V
Output saturation voltage	V <sub>O,STA</sub>			1.3	V	I <sub>O</sub> =1A, Ta=25°C
	V <sub>O,STA</sub>			1.5	V	I <sub>O</sub> =1.5A, Ta=25°C
Output leak current	I <sub>O,LEAK</sub>			100	$\mu$ A	V <sub>O</sub> =16V
Overcurrent detection	I <sub>SD</sub>	1.8			A	
Overvoltage detection	V <sub>SD</sub>	27.5			V	
Saturation voltage of diagnostic output	V <sub>DIAG,L</sub>			0.3	V	I <sub>DIAG</sub> =5mA
Standby current	I <sub>STB</sub>		50		$\mu$ A	V <sub>S</sub> =12V

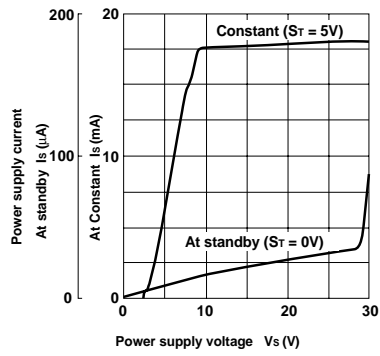
## External Dimensions (unit: mm)



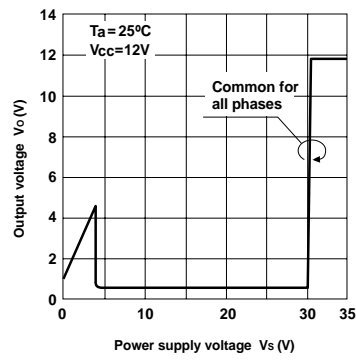
## Standard Circuit Diagram



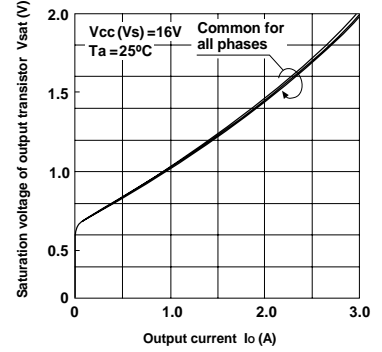
■ Power Supply Current Characteristics



■ Overvoltage Protection Characteristics



■ Saturation Voltage of Output Transistor Characteristics



■ Thermal Protection Characteristics

