

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 = 25°C)

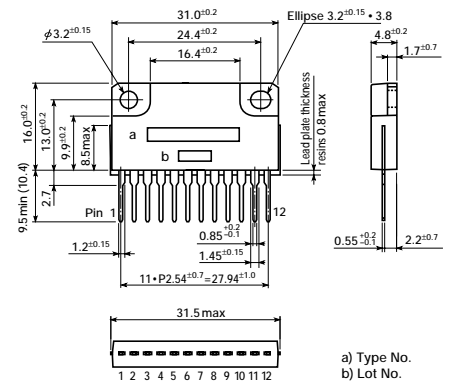
| Parameter | Symbol | Ratings | Unit | Conditions |
|-------------------------------------|---------------------|---------------|------|------------------|
| Power supply voltage | V _S | 35 | V | |
| Breakdown voltage | V _O | 50 | V | |
| Input voltage | V _{IN} | -0.3 to +7 | V | |
| Output current | 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 | T _{OP} | -40 to +85 | °C | |
| Storage temperature | T _{STG} | -40 to +150 | °C | |
| Power Dissipation | P _D | 3.5 (Ta=25°C) | W | Without heatsink |

Electrical Characteristics

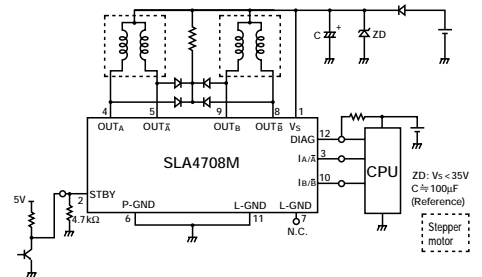
(V_S = 12V, Ta = 25°C)

| Parameter | Symbol | Ratings | | | Unit | Conditions |
|--|---------------------|---------|-----|------|------|----------------------------------|
| | | min | typ | max | | |
| Input voltage (I _A /I _A , I _B /I _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 = 25°C |
| | V _{O,STA} | | | 1.5 | V | I _O = 1.5A, Ta = 25°C |
| 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 |

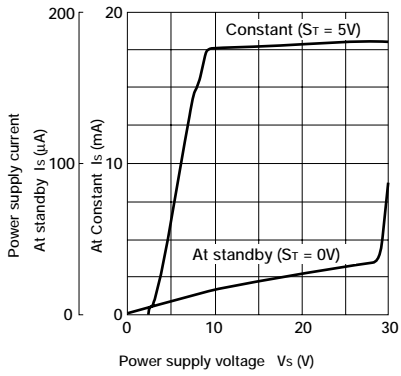
External Dimensions (unit: mm)



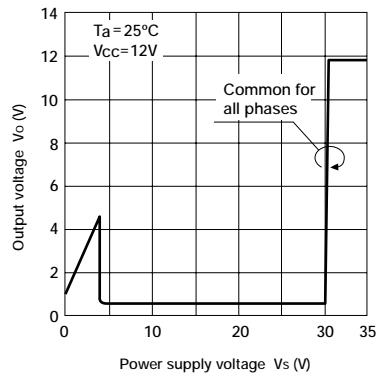
Standard Circuit Diagram



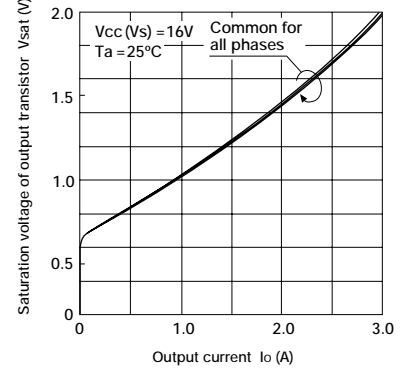
■ Power Supply Current Characteristics



■ Overvoltage Protection Characteristics



■ Saturation Voltage of Output Transistor Characteristics



■ Thermal Protection Characteristics

