

SLA7027MU/SLA7024M/SLA7026M

2-Phase/1-2 Phase Excitation

■ Absolute Maximum Ratings

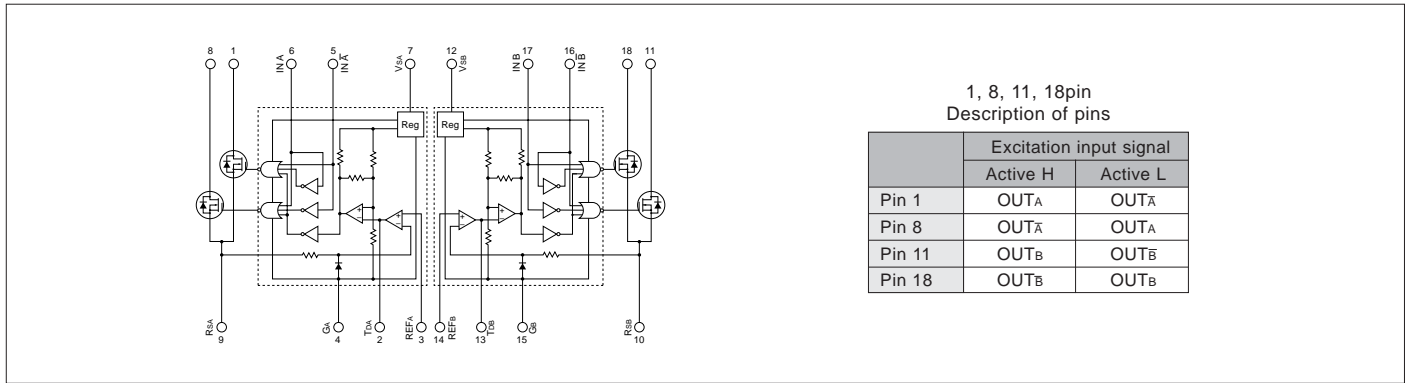
(Ta=25°C)

| Parameter | Symbol | Ratings | | | Unit |
|--------------------------|------------------|---------------------------|----------|----------|------|
| | | SLA7027MU | SLA7024M | SLA7026M | |
| Motor Supply Voltage | V _{CC} | 46 | | | V |
| FET Drain-Source Voltage | V _{DSS} | 100 | | | V |
| Control Supply Voltage | V _S | 46 | | | V |
| Input Voltage | V _{IN} | 7 | | | V |
| Reference Voltage | V _{REF} | 2 | | | V |
| Output Current | I _O | 1 | 1.5 | 3 | A |
| Power Dissipation | P _{D1} | 4.5 (Without Heatsink) | | | W |
| | P _{D2} | 35 (T _C =25°C) | | | W |
| Channel Temperature | T _{ch} | +150 | | | °C |
| Storage Temperature | T _{stg} | -40 to +150 | | | °C |

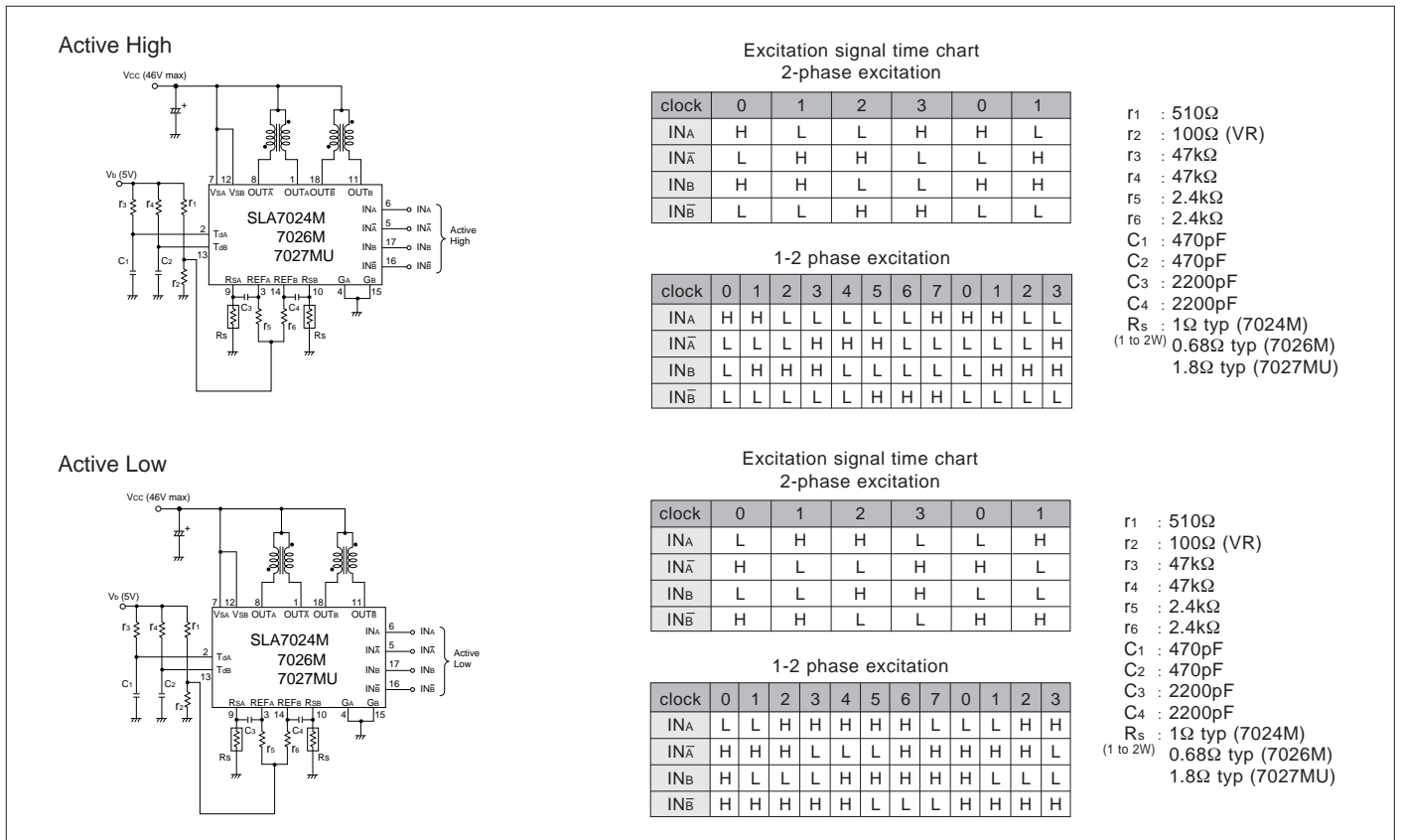
■ Electrical Characteristics

| Parameter | Symbol | Ratings | | | | | | | | | Unit |
|---------------------------------|---|--|------|---|--|------|---|--|------|------|------|
| | | SLA7027MU | | | SLA7024M | | | SLA7026M | | | |
| | | min. | typ. | max. | min. | typ. | max. | min. | typ. | max. | |
| Control Supply Current | I _S | | 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 _{DSS} =250μA | | | V _S =44V, I _{DSS} =250μA | | | V _S =44V, I _{DSS} =250μA | | | |
| FET ON Voltage | V _{DS} | | | 0.85 | | | 0.6 | | | 0.85 | V |
| | Condition | I _D =1A, V _S =14V | | | I _D =1A, V _S =14V | | | I _D =3A, V _S =14V | | | |
| FET Drain Leakage Current | I _{DSS} | | | 4 | | | 4 | | | 4 | mA |
| | Condition | V _{DSS} =100V, V _S =44V | | | V _{DSS} =100V, V _S =44V | | | V _{DSS} =100V, V _S =44V | | | |
| FET Diode Forward Voltage | V _{SD} | | | 1.2 | | | 1.1 | | | 2.3 | V |
| | Condition | I _D =1A | | | I _D =1A | | | I _D =3A | | | |
| TTL Input Current | I _{IH} | | | 40 | | | 40 | | | 40 | μA |
| | Condition | V _{IH} =2.4V, V _S =44V | | | V _{IH} =2.4V, V _S =44V | | | V _{IH} =2.4V, V _S =44V | | | |
| | I _{IL} | | | -0.8 | | | -0.8 | | | -0.8 | |
| TTL Input Voltage (Active High) | Condition | V _{IL} =0.4V, V _S =44V | | | V _{IL} =0.4V, V _S =44V | | | V _{IL} =0.4V, V _S =44V | | | mA |
| | V _{IH} | 2 | | | 2 | | | 2 | | | |
| | Condition | I _D =1A | | | I _D =1A | | | I _D =3A | | | |
| TTL Input Voltage (Active Low) | V _{IL} | | | 0.8 | | | 0.8 | | | 0.8 | V |
| | Condition | V _{DSS} =100V | | | V _{DSS} =100V | | | V _{DSS} =100V | | | |
| | V _{IH} | 2 | | | 2 | | | 2 | | | |
| TTL Input Voltage (Active Low) | Condition | V _{DSS} =100V | | | V _{DSS} =100V | | | V _{DSS} =100V | | | V |
| | V _{IL} | | | 0.8 | | | 0.8 | | | 0.8 | |
| | Condition | I _D =1A | | | I _D =1A | | | I _D =3A | | | |
| Switching Time | T _r | | 0.5 | | | 0.5 | | | 0.5 | | μs |
| | Condition | V _S =24V, I _D =0.8A | | | V _S =24V, I _D =1A | | | V _S =24V, I _D =1A | | | |
| | T _{sig} | | 0.7 | | | 0.7 | | | 0.7 | | |
| | Condition | V _S =24V, I _D =0.8A | | | V _S =24V, I _D =1A | | | V _S =24V, I _D =1A | | | |
| | T _f | | 0.1 | | | 0.1 | | | 0.1 | | |
| Condition | V _S =24V, I _D =0.8A | | | V _S =24V, I _D =1A | | | V _S =24V, I _D =1A | | | | |

Internal Block Diagram



Typical Connection Diagram (Recommended component values)



External Dimensions (ZIP18 with Fin [SLA18Pin])

(Unit : mm)

