


SLA5059

查询SLA5059供应商

N-channel + P-channel

捷多邦, 专业PCB打样工厂, 24小时加急出货

3-phase motor drive

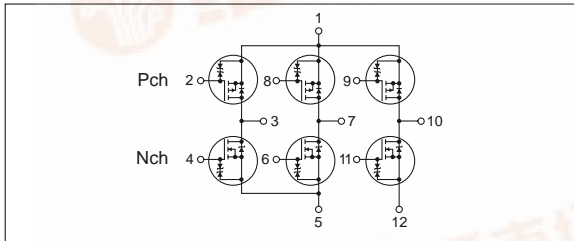
External dimensions  SLA

Absolute maximum ratings

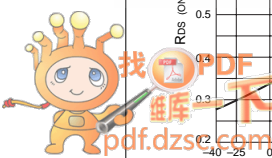
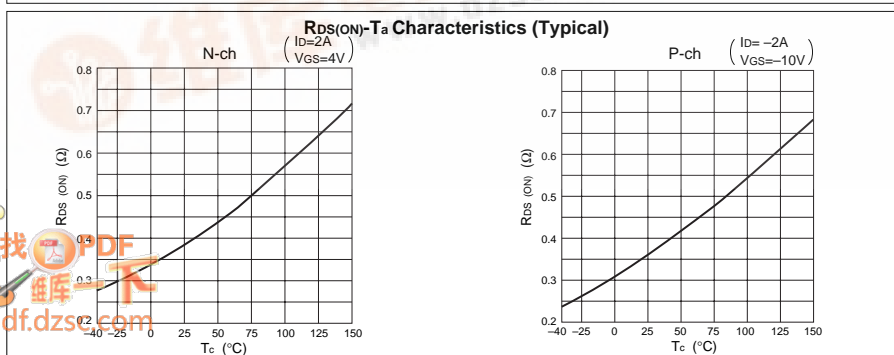
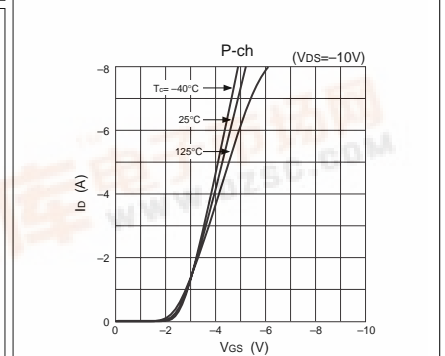
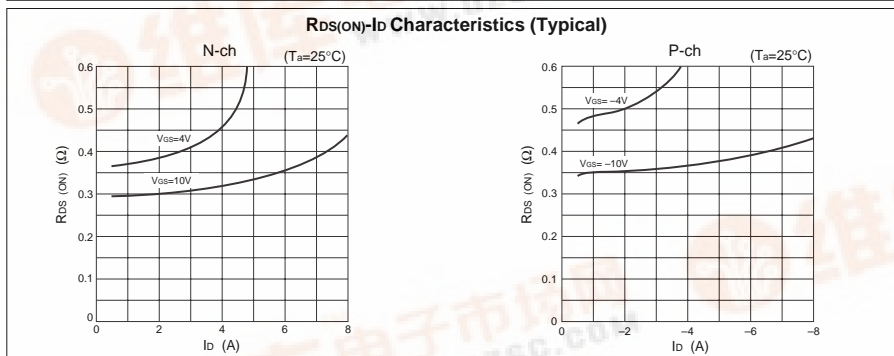
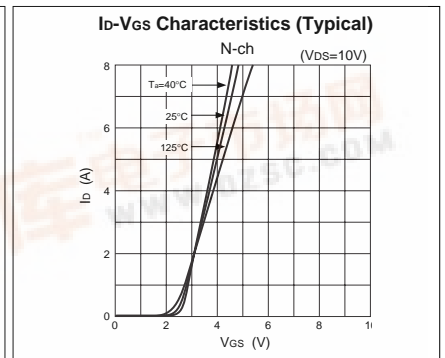
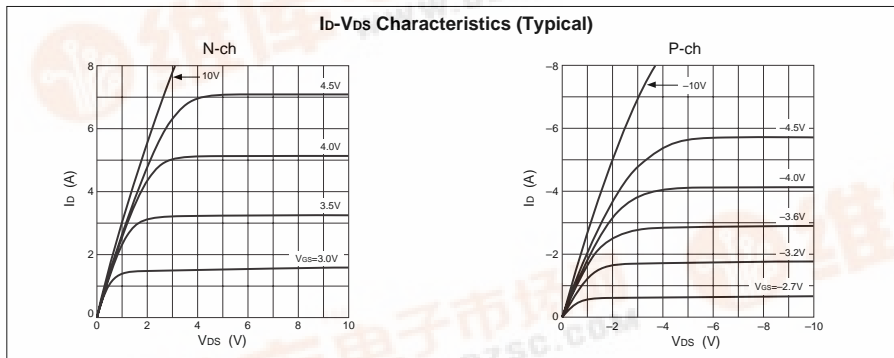
(Ta=25°C)

| Symbol | Ratings | | Unit |
|-----------------------|---|-----------|------|
| | N channel | P channel | |
| V _{BS} | 60 | -60 | V |
| V _{GS} | ±20 | ∓20 | V |
| I _D | 4 | -4 | A |
| I _{D(pulse)} | 8 (PW≤1ms, Duty≤25%) | | A |
| P _T | 5 (Ta=25°C, with all circuits operating, without heatsink) | | W |
| | 30 (Tc=25°C, with all circuits operating, with infinite heatsink) | | W |
| θ _{j-a} | 25 (Junction-Air, Ta=25°C, with all circuits operating) | | °C/W |
| θ _{j-c} | 4.17 (Junction-Case, Tc=25°C, with all circuits operating) | | °C/W |
| T _{ch} | 150 | | °C |
| T _{stg} | -40 to +150 | | °C |

Equivalent circuit diagram



Characteristic curves



SLA5059

Electrical characteristics

($T_a=25^\circ\text{C}$)

| Symbol | N channel | | | | | P channel | | | | |
|---------------|---------------|-----|----------|---------------|---|---|-----|----------|---------------|--|
| | Specification | | | Unit | Conditions | Specification | | | Unit | Conditions |
| | min | typ | max | | | min | typ | max | | |
| $V_{(BR)DSS}$ | 60 | | | V | $I_D=100\mu\text{A}, V_{GS}=0\text{V}$ | -60 | | | V | $I_D=-100\mu\text{A}, V_{GS}=0\text{V}$ |
| I_{GSS} | | | ± 10 | μA | $V_{GS}=\pm 20\text{V}$ | | | ∓ 10 | μA | $V_{GS}=\mp 20\text{V}$ |
| I_{DSS} | | | 100 | μA | $V_{DS}=60\text{V}, V_{GS}=0\text{V}$ | | | -100 | μA | $V_{DS}=-60\text{V}, V_{GS}=0\text{V}$ |
| V_{TH} | 1.0 | | 2.0 | V | $V_{DS}=10\text{V}, I_D=250\mu\text{A}$ | -1.0 | | -2.0 | V | $V_{DS}=-10\text{V}, I_D=-250\mu\text{A}$ |
| $R_{e(yfs)}$ | | 2.5 | | S | $V_{DS}=10\text{V}, I_D=2\text{A}$ | | 3 | | S | $V_{DS}=-10\text{V}, I_D=-2\text{A}$ |
| $R_{DS(ON)}$ | | | 0.55 | Ω | $V_{GS}=4\text{V}, I_D=2\text{A}$ | | | 0.55 | Ω | $V_{GS}=-10\text{V}, I_D=-2\text{A}$ |
| C_{iss} | | 150 | | pF | $V_{DS}=10\text{V}, f=1.0\text{MHz},$ $V_{GS}=0\text{V}$ | | 320 | | pF | $V_{DS}=-10\text{V}, f=1.0\text{MHz},$ $V_{GS}=0\text{V}$ |
| C_{oss} | | 70 | | pF | | | 130 | | pF | |
| C_{rss} | | 15 | | pF | | | 40 | | pF | |
| $t_{d(on)}$ | | 12 | | ns | | $I_D=2\text{A}, V_{DD}=20\text{V},$ $R_L=10\Omega, V_{GS}=5\text{V}$ see Fig. 3 on page 16. | | 20 | | |
| t_r | | 40 | | ns | | | 95 | | ns | |
| $t_{d(off)}$ | | 40 | | ns | | | 70 | | ns | |
| t_f | | 25 | | ns | | | 60 | | ns | |
| V_{SD} | | 1.2 | | V | $I_{SD}=5\text{A}, V_{GS}=0\text{V}$ | | | 1.1 | | V |
| t_{rr} | | 75 | | ns | $I_{SD}=2\text{A}, V_{GS}=0\text{V}$ $di/dt=100\text{A}/\mu\text{s}$ | | 75 | | ns | $I_{SD}=-2\text{A}, V_{GS}=0\text{V}$ $di/dt=100\text{A}/\mu\text{s}$ |

Characteristic curves

