

SLA5052

查询SLA5052供应

N-channel

捷多邦, 专业PCB打样工厂, 24小时加急出货

General purpose

External dimensions (A) ... SLA

Absolute maximum ratings

(Ta=25°C)

| Symbol | Ratings | Unit |
|-----------------------|---|------|
| V _{DSS} | 150 | V |
| V _{GSS} | ±20 | V |
| I _D | ±10 | A |
| I _{D(pulse)} | ±40 (PW≤1ms, Du≤1%) | A |
| E _{AS*} | 160 | mJ |
| P _T | 5 (Ta=25°C, with all circuits operating, without heatsink) | W |
| | 40 (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} | 3.13 (Junction-Case, Tc=25°C, with all circuits operating) | °C/W |
| V _{ISO} | 1000 (Between fin and lead pin, AC) | Vrms |
| T _{ch} | 150 | °C |
| T _{stg} | -40 to +150 | °C |

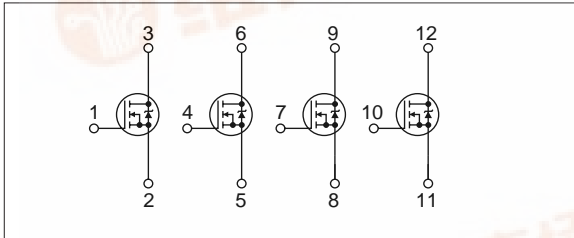
* : V_{DD}=25V, L=2.7mH, I_D=10A, unclamped, R_C=50Ω, see Fig. E on page 15.

Electrical characteristics

(Ta=25°C)

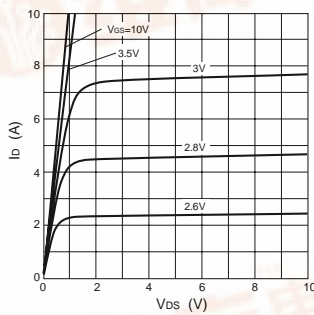
| Symbol | Specification | | | Unit | Conditions |
|----------------------|---------------|------|------|------|---|
| | min | typ | max | | |
| V _{(BR)DSS} | 150 | | | V | I _D =100μA, V _{GS} =0V |
| I _{GSS} | | | ±100 | nA | V _{GS} =±20V |
| I _{DSS} | | | 100 | μA | V _{DS} =150V, V _{GS} =0V |
| V _{TH} | 1.0 | | 2.0 | V | V _{DS} =10V, I _D =250μA |
| R _{e(yfs)} | 8 | 13.5 | | S | V _{DS} =10V, I _D =5A |
| | | 90 | 115 | mΩ | V _{GS} =10V, I _D =5A |
| R _{DS(ON)} | | 105 | 130 | mΩ | V _{GS} =4V, I _D =5A |
| | | | | | |
| C _{iss} | | 1500 | | pF | V _{DS} =10V, f=1.0MHz, |
| C _{oss} | | 360 | | pF | V _{GS} =0V |
| td(on) | | 30 | | ns | I _D =5A, V _{DD} ≐70V, R _L =14Ω, V _{GS} =5V, see Fig. 3 on page 16. |
| tr | | 35 | | ns | |
| td(off) | | 100 | | ns | |
| tf | | 40 | | ns | |
| V _{SD} | | 1.0 | 1.5 | V | I _{SD} =10A, V _{GS} =0V |
| t _{rr} | | 420 | | ns | I _{SD} =±100mA |

Equivalent circuit diagram

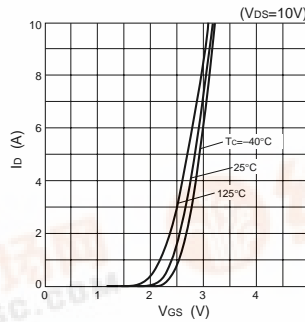


Characteristic curves

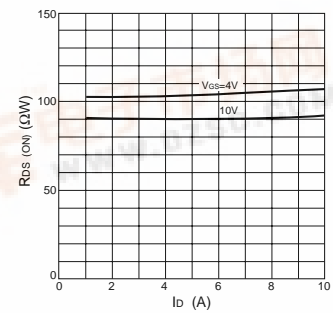
I_D-V_{DS} Characteristics (Typical)



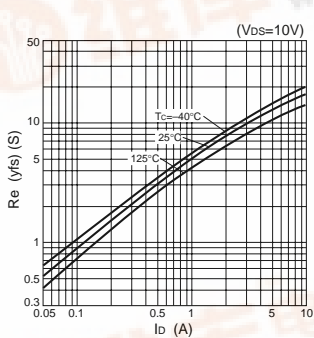
I_D-V_{GS} Characteristics (Typical)



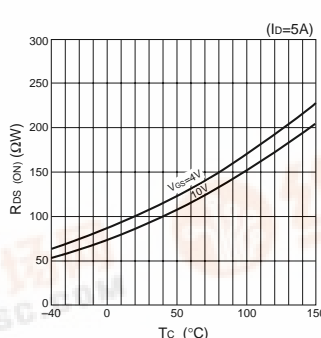
R_{DS(ON)}-I_D Characteristics (Typical)



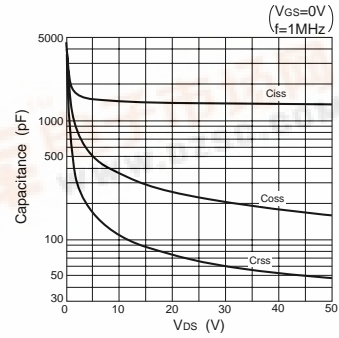
R_{e(yfs)}-I_D Characteristics (Typical)



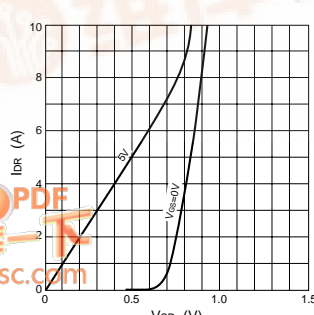
R_{DS(ON)}-T_C Characteristics (Typical)



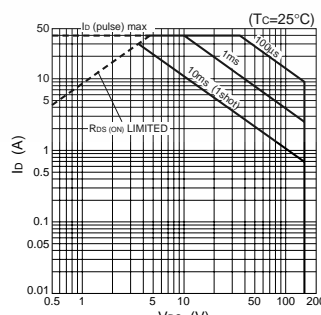
Capacitance-V_{DS} Characteristics (Typical)



I_{DR}-V_{SD} Characteristics (Typical)



Safe Operating Area (SOA)



P_T-T_a Characteristics

