# SLA5094

**N-channel**
**General purpose**

**External dimensions Ⓐ ··· SLA (12-pin)**

## Absolute maximum ratings (Ta=25°C)

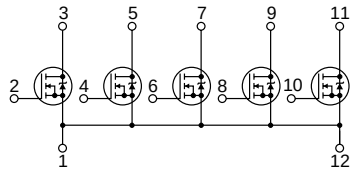
| Symbol | Ratings | Unit |
|---|---|---|
| $V_{DSS}$ | 200 | V |
| $V_{GSS}$ | ±20 | V |
| $I_D$ | ±7 | A |
| $I_{D(pulse)}$ | ±15 (PW≤100μs, duty≤1%) | A |
| $E_{AS}$* | 55 | mJ |
| $I_{AS}$* | 7 | A |
| $P_T$ | 5 (Ta=25°C, with all circuits operating, without heatsink) | W |
| | 35 (Tc=25°C, with all circuits operating, with infinite heatsink) | |
| $\theta$j-a | 25 (Junction-Air, Ta=25°C, with all circuits operating) | °C/W |
| $\theta$j-c | 3.57 (Junction-Case, Tc=25°C, with all circuits operating) | °C/W |
| $V_{ISO}$ | 1000 (Between fin and lead pin, AC) | Vrms |
| Tch | 150 | °C |
| Tstg | –40 to +150 | °C |

* : $V_{DD}$=25V, L=2mH, $I_D$=7A, unclamped, $R_G$=50Ω, see Fig. E on page 15.

## Electrical characteristics (Ta=25°C)

| Symbol | Specification | | | Unit | Conditions |
|---|---|---|---|---|---|
| | min | typ | max | | |
| $V_{(BR)DSS}$ | 200 | | | V | $I_D$=100μA, $V_{GS}$=0V |
| $I_{GSS}$ | | | ±100 | nA | $V_{GS}$=±20V |
| $I_{DSS}$ | | | 100 | μA | $V_{DS}$=200V, $V_{GS}$=0V |
| $V_{TH}$ | 1.0 | | 2.0 | V | $V_{DS}$=10V, $I_D$=250μA |
| Re(yfs) | 4 | 7 | | S | $V_{DS}$=10V, $I_D$=3.5A |
| $R_{DS(ON)}$ | | 280 | 350 | mΩ | $V_{GS}$=10V, $I_D$=3.5A |
| | | 320 | 480 | mΩ | $V_{GS}$=4V, $I_D$=3.5A |
| Ciss | | 420 | | pF | $V_{DS}$=10V, |
| Coss | | 210 | | pF | f=1.0MHz, |
| Crss | | 90 | | pF | $V_{GS}$=0V |
| td(on) | | 16 | | ns | $I_D$=3.5A, $V_{DD}$≒100V, |
| tr | | 60 | | ns | $R_L$=28.6Ω, |
| td(off) | | 100 | | ns | $V_{GS}$=5V, |
| tf | | 70 | | ns | see Fig. 3 on page 16. |
| $V_{SD}$ | | 1.0 | 1.5 | V | $I_{SD}$=7A, $V_{GS}$=0V |

## ■Equivalent circuit diagram




## Characteristic curves