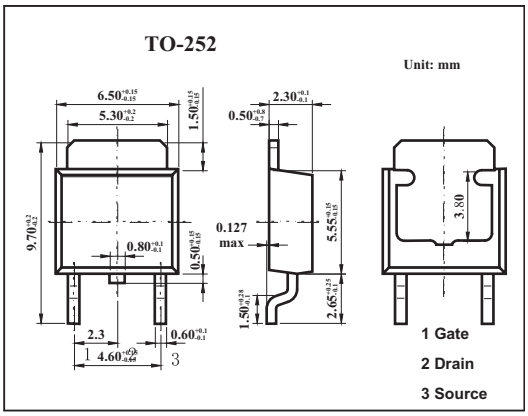
TY Semicondutor®

**Product specification**

# 2SK3483




## ■ Features

- Super low on-state resistance:

  $R_{DS(on)1}$ = 52mΩ MAX. ($V_{GS}$ = 10 V, $I_D$ = 14A)

  $R_{DS(on)2}$ = 59mΩ MAX. ($V_{GS}$ = 4.5 V, $I_D$ = 14A)
- Low Ciss: Ciss = 2300 pF TYP.

## ■ Absolute Maximum Ratings Ta = 25℃

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Drain to source voltage | $V_{DSS}$ | 100 | V |
| Gate to source voltage | $V_{GSS}$ | ±20 | V |
| Drain current | $I_D$ | ±28 | A |
| | $I_{dp}$ * | ±60 | A |
| Power dissipation Tc=25℃<br>Ta=25℃ | $P_D$ | 40<br>1.0 | W |
| Channel temperature | Tch | 150 | ℃ |
| Storage temperature | Tstg | -55 to +150 | ℃ |

* PW≤10μs,Duty Cycle≤1%

## ■ Electrical Characteristics Ta = 25℃

| Parameter | Symbol | Testconditons | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Drain cut-off current | $I_{DSS}$ | $V_{DS}$=100V,$V_{GS}$=0 | | | 10 | μA |
| Gate leakage current | $I_{GSS}$ | $V_{GS}$=±20V,$V_{DS}$=0 | | | ±10 | μA |
| Gat cutoff voltage | $V_{GS(off)}$ | $V_{DS}$=10V,$I_D$=1mA | 1.5 | 2.0 | 2.5 | V |
| Forward transfer admittance | \| Yfs \| | $V_{DS}$=10V,$I_D$=14A | 9.0 | 18 | | S |
| Drain to source on-state resistance | $R_{DS(on)1}$ | $V_{GS}$=10V,$I_D$=14A | | 41 | 52 | mΩ |
| | $R_{DS(on)2}$ | $V_{GS}$=4.5V,$I_D$=14A | | 45 | 59 | mΩ |
| Input capacitance | Ciss | $V_{DS}$=10V,$V_{GS}$=0,f=1MHZ | | 2300 | | pF |
| Output capacitance | Coss | | | 230 | | pF |
| Reverse transfer capacitance | Crss | | | 120 | | pF |
| Turn-on delay time | ton | $I_D$=14A,$V_{GS(on)}$=10V,$R_G$=0Ω,$V_{DD}$=50V | | 12 | | ns |
| Rise time | tr | | | 9 | | ns |
| Turn-off delay time | toff | | | 53 | | ns |
| Fall time | tf | | | 5 | | ns |
| Total Gate Charge | $Q_G$ | $I_D$ =28A, $V_{DD}$ =80V, $V_{GS}$ = 10 V | | 49 | | nC |
| Gate to Source Charge | $Q_{GS}$ | | | 7 | | nC |
| Gate to Drain Charge | $Q_{GD}$ | | | 13 | | nC |