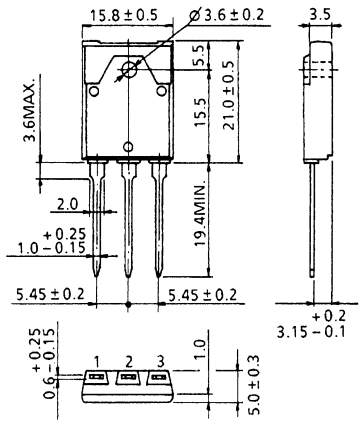
TOSHIBA Field Effect Transistor Silicon N Channel MOS Type

# 2SK2467

## High-Power Amplifier Application

- High breakdown voltage: $V_{DSS}$ = 180 V
- High forward transfer admittance: $|Y_{fs}|$ = 4.0 S (typ.)

Unit: mm




1.GATE
2.DRAIN
3.SOURCE

| | |
|---|---|
| JEDEC | — |
| JEITA | — |
| TOSHIBA | 2-16F1B |

Weight: 5.8 g (typ.)

## Absolute Maximum Ratings (Ta = 25°C)

| Characteristics | Symbol | Rating | Unit |
|---|---|---|---|
| Drain-source voltage | $V_{DSS}$ | 180 | V |
| Gate-source voltage | $V_{GSS}$ | ±20 | V |
| Drain current (Note 1) | $I_D$ | 9 | A |
| Drain power dissipation (Tc = 25°C) | $P_D$ | 80 | W |
| Channel temperature | $T_{ch}$ | 150 | °C |
| Storage temperature range | $T_{stg}$ | −55 to 150 | °C |

Note 1: Ensure that the channel temperature does not exceed 150°C.

Note 2: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings. Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook (“Handling Precautions”/Derating Concept and Methods) and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

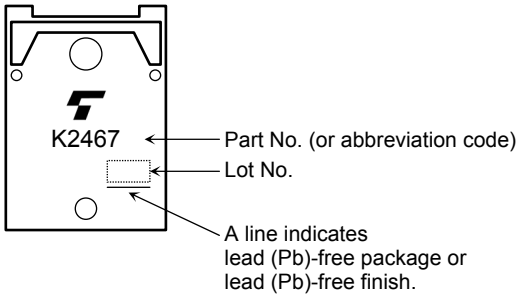
## Electrical Characteristics (Ta = 25°C)

| Characteristics | Symbol | Test Condition | Min | Typ. | Max | Unit |
|---|---|---|---|---|---|---|
| Drain cut-off current | $I_{DSS}$ | $V_{DS}$ = 180 V, $V_{GS}$ = 0 | — | — | 1.0 | mA |
| Gate leakage current | $I_{GSS}$ | $V_{DS}$ = 0, $V_{GS}$ = ±20 V | — | — | ±0.5 | μA |
| Drain-source breakdown voltage | $V_{(BR)\ DSS}$ | $I_D$ = 10 mA, $V_{GS}$ = 0 | 180 | — | — | V |
| Drain-source saturation voltage | $V_{DS\ (ON)}$ | $V_{GS}$ = 10 V, $I_D$ = 6 A | — | 2.5 | 5.0 | V |
| Gate-source cut-off voltage (Note 3) | $V_{GS\ (OFF)}$ | $V_{DS}$ = 10 V, $I_D$ = 0.1 A | 1.4 | — | 2.8 | V |
| Forward transfer admittance | $\|Y_{fs}\|$ | $V_{DS}$ = 10 V, $I_D$ = 3 A | — | 4.0 | — | S |
| Input capacitance | $C_{iss}$ | $V_{DS}$ = 30 V, $V_{GS}$ = 0, f = 1 MHz | — | 700 | — | pF |
| Output capacitance | $C_{oss}$ | $V_{DS}$ = 30 V, $V_{GS}$ = 0, f = 1 MHz | — | 150 | — | pF |
| Reverse capacitance | $C_{rss}$ | $V_{DS}$ = 30 V, $V_{GS}$ = 0, f = 1 MHz | — | 90 | — | pF |

Note 3: $V_{GS\ (OFF)}$ classification Y: 1.4 to 2.8

This transistor is an electrostatic-sensitive device. Plese handle with caution.

**Marking**


K2467
Part No. (or abbreviation code)
Lot No.
A line indicates
lead (Pb)-free package or
lead (Pb)-free finish.

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20070701-EN

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