

isc N-Channel MOSFET Transistor

2SK818A

DESCRIPTION

- Drain Current $-I_D=5A@ T_C=25^\circ C$
- Drain Source Voltage:
: $V_{DSS}=900V(\text{Min})$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

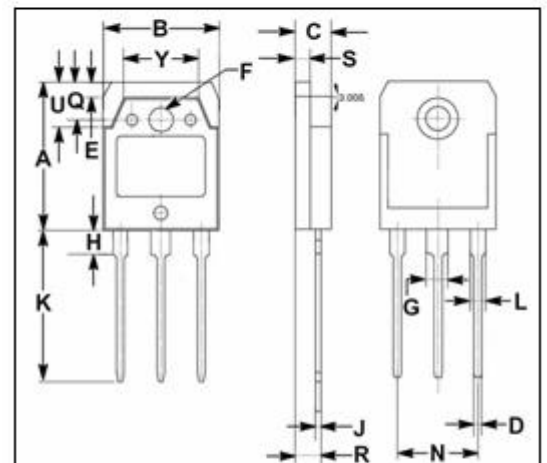
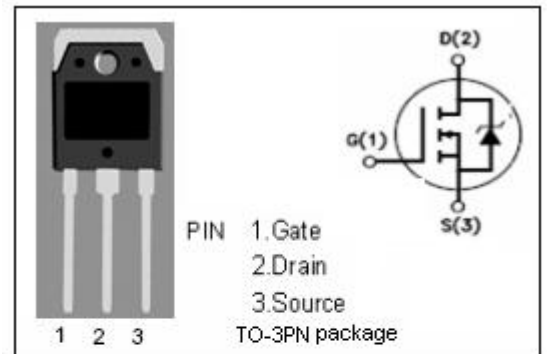
- Designed for high voltage, high speed power switching applications such as switching regulators, converters, solenoid and relay drivers.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ C$)

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|----------|------------|
| V_{DSS} | Drain-Source Voltage ($V_{GS}=0$) | 900 | V |
| V_{GS} | Gate-Source Voltage | ± 20 | V |
| I_D | Drain Current-continuous@ $T_C=25^\circ C$ | 5 | A |
| P_{tot} | Total Dissipation@ $T_C=25^\circ C$ | 100 | W |
| T_j | Max. Operating Junction Temperature | 150 | $^\circ C$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^\circ C$ |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|---|------|--------------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 1.0 | $^\circ C/W$ |
| $R_{th\ j-a}$ | Thermal Resistance, Junction to Ambient | 62.5 | $^\circ C/W$ |



| DIM | mm | |
|-----|-------|-------|
| | MIN | MAX |
| A | 19.60 | 20.10 |
| B | 15.50 | 15.70 |
| C | 4.70 | 4.90 |
| D | 0.90 | 1.10 |
| E | 1.90 | 2.10 |
| F | 3.40 | 3.60 |
| G | 2.90 | 3.20 |
| H | 3.20 | 3.40 |
| J | 0.595 | 0.605 |
| K | 20.00 | 20.70 |
| L | 1.90 | 2.20 |
| N | 10.89 | 10.91 |
| Q | 4.90 | 5.10 |
| R | 3.35 | 3.45 |
| S | 1.995 | 2.100 |
| U | 5.90 | 6.10 |
| Y | 9.90 | 10.10 |

isc N-Channel Mosfet Transistor**2SK818A****• ELECTRICAL CHARACTERISTICS (T_c=25°C)**

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP | MAX | UNIT |
|----------------------|----------------------------------|---|-----|-----|-----|------|
| V _{(BR)DSS} | Drain-Source Breakdown Voltage | V _{GS} =0; I _D = 1mA | 900 | | | V |
| V _{GS(th)} | Gate Threshold Voltage | V _{DS} =25 V _{GS} ; I _D =1mA | 1.0 | | 5.0 | V |
| R _{DS(on)} | Drain-Source On-stage Resistance | V _{GS} =10V; I _D = 3A | | 1.5 | 3.0 | Ω |
| I _{GSS} | Gate Source Leakage Current | V _{GS} = ±20V; V _{DS} = 0 | | | ±1 | uA |
| I _{DSS} | Zero Gate Voltage Drain Current | V _{DS} =640V; V _{GS} = 0 | | | 0.1 | mA |
| ton | Turn-on time | V _{GS} =10V; I _D =3A; | | 60 | | ns |
| toff | Turn-off time | R _L =66 Ω | | 365 | | ns |

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