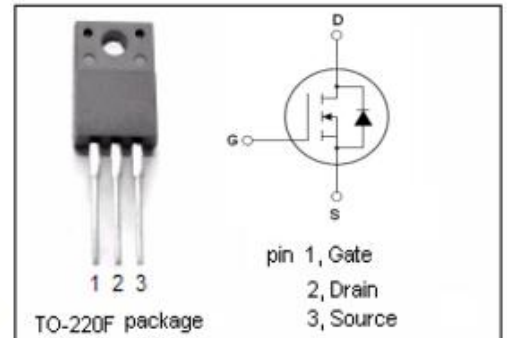


isc N-Channel MOSFET Transistor
2SK2645
DESCRIPTION

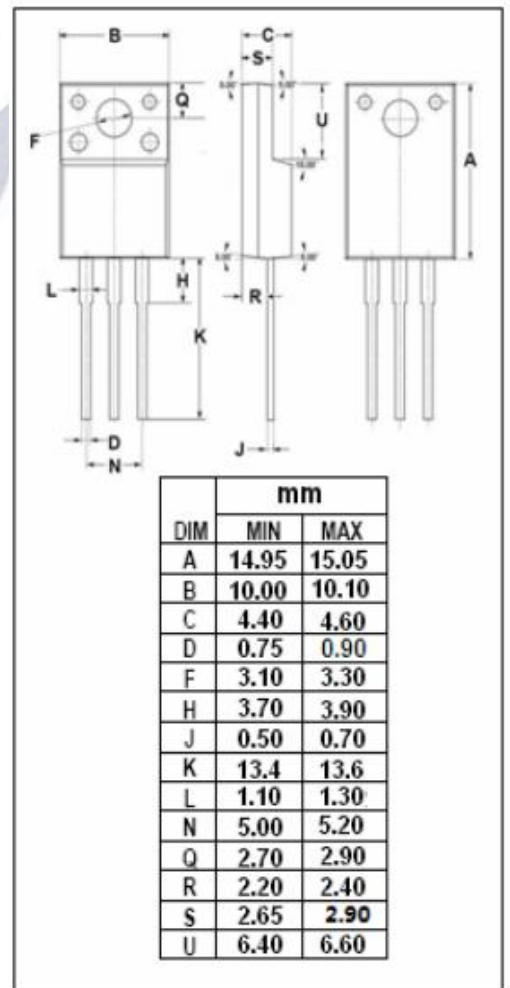
- Drain Current $I_D = 9A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DSS} = 600V(\text{Min})$
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for high efficiency switch mode power supply.


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

| SYMBOL | PARAMETER | VALUE | UNIT |
|----------------------|--|----------|------------|
| V_{DSS} | Drain-Source Voltage ($V_{GS} = 0$) | 600 | V |
| V_{GS} | Gate-Source Voltage | ± 30 | V |
| I_D | Drain Current-continuous@ $T_C = 25^\circ C$ | 9 | A |
| $I_{D(\text{puls})}$ | Pulse Drain Current | 32 | A |
| P_{tot} | Total Dissipation@ $T_C = 25^\circ C$ | 50 | 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 |
|---------------------|---|------|--------------|
| $R_{\text{th j-c}}$ | Thermal Resistance, Junction to Case | 3.47 | $^\circ C/W$ |
| $R_{\text{th j-a}}$ | Thermal Resistance, Junction to Ambient | 62.5 | $^\circ C/W$ |

isc N-Channel MOSFET Transistor**2SK2645**• ELECTRICAL CHARACTERISTICS (T_c=25°C)

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYPE | MAX | UNIT |
|----------------------|---------------------------------|---|-----|------|------|------|
| V _{(BR)DSS} | Drain-Source Breakdown Voltage | V _{GS} = 0; I _D = 250μA | 600 | | | V |
| V _{GS(th)} | Gate Threshold Voltage | V _{DS} = V _{GS} ; I _D =250μA | 3 | | 4.5 | V |
| V _{SD} | Diode Forward On-Voltage | I _S =9A; V _{GS} = 0 | | | 1.5 | V |
| R _{DS(on)} | Drain-Source On-Resistance | V _{GS} = 10V; I _D =4A | | | 1.2 | Ω |
| I _{GSS} | Gate-Body Leakage Current | V _{GS} = ±30V; V _{DS} = 0 | | | ±0.1 | μA |
| I _{DSS} | Zero Gate Voltage Drain Current | V _{DS} = 600V; V _{GS} = 0 | | | 500 | μA |