

isc N-Channel MOSFET Transistor
BUK573-100A/B
DESCRIPTION

- Drain Source Voltage
: $V_{DSS} = 100V(\text{Min})$
- Low $R_{DS(\text{ON})}$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

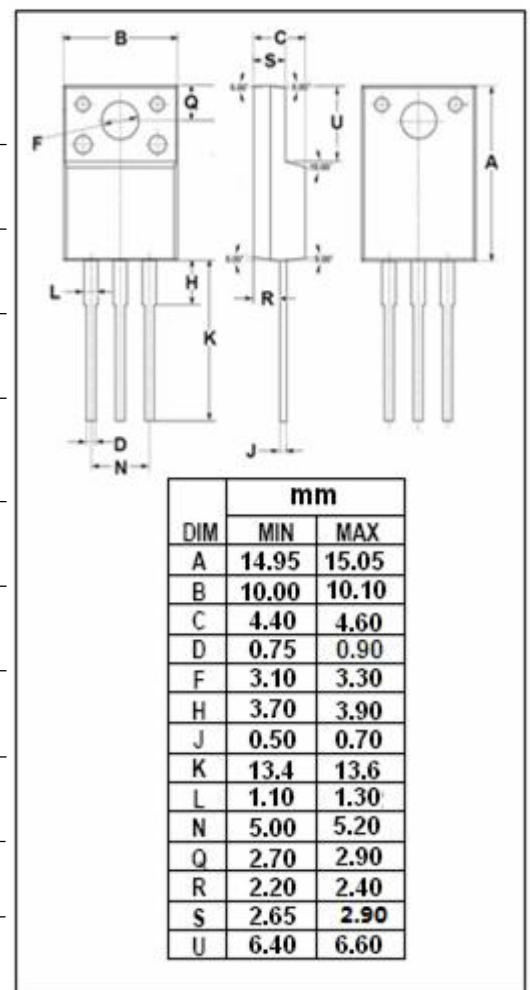
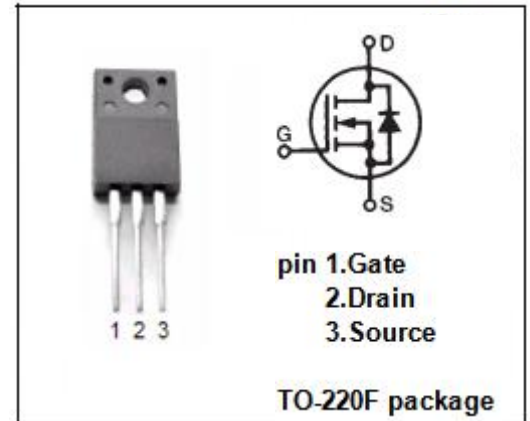
- Designed for Switched Mode Power Supplies (SMPS), motor control, welding, and in general purpose switching resistance applications

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|-------------|------------------|
| V_{DSS} | Drain-Source Voltage ($V_{GS}=0$) | 100 | V |
| V_{GS} | Gate-Source Voltage | ± 15 | V |
| I_D | Drain Current-continuous @ $TC=25^\circ\text{C}$ | BUK573-100A | 8.3 |
| | | BUK573-100B | 7.5 |
| P_{tot} | Total Dissipation @ $TC=25^\circ\text{C}$ | 25 | W |
| T_j | Max. Operating Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature Range | -55-150 | $^\circ\text{C}$ |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|--------------------------------------|-----|--------------------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 5 | $^\circ\text{C/W}$ |



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ELECTRICAL CHARACTERISTICS (T_c=25°C)

| SYMBOL | PARAMETER | CONDITIONS | MIN | MAX | UNIT | |
|----------------------|----------------------------------|--|-------------|------|------|---|
| V _{(BR)DSS} | Drain-Source Breakdown Voltage | V _{GS} = 0; I _D = 0.25mA | 100 | -- | V | |
| V _{GS(th)} | Gate Threshold Voltage | V _{DS} = V _{GS} ; I _D = 1.0mA | 1.0 | 2.0 | V | |
| R _{DS(on)} | Drain-Source On-stage Resistance | V _{GS} = 5V; I _D = 5A | BUK573-100A | -- | 0.18 | Ω |
| | | | BUK573-100B | -- | 0.22 | Ω |
| I _{GSS} | Gate Source Leakage Current | V _{GS} = ±15V; V _{DS} = 0 | -- | ±100 | nA | |
| I _{DSS} | Zero Gate Voltage Drain Current | V _{DS} = 100V; V _{GS} = 0 | -- | 10 | μA | |
| V _{SD} | Forward On-Voltage | I _S = 8.3A; V _{GS} = 0 | -- | 1.3 | V | |

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