

isc N-Channel MOSFET Transistor

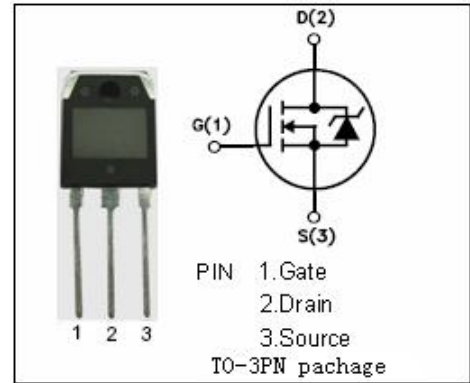
2SK1705

DESCRIPTION

- Drain Current  $I_D = 10A @ T_C = 25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS} = 500V (Min)$
- Fast Switching Speed

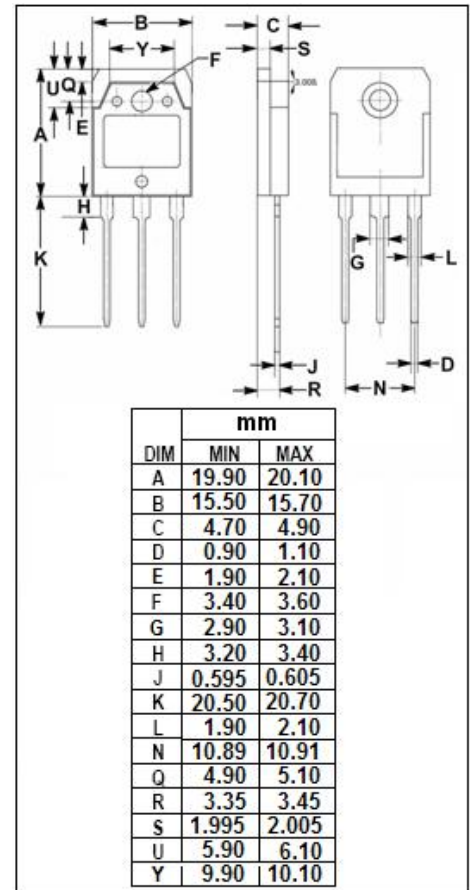
APPLICATIONS

- Power supplies, converters and power motor controls



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

| SYMBOL    | PARAMETER                                    | VALUE    | UNIT       |
|-----------|--|----------|------------|
| $V_{DSS}$ | Drain-Source Voltage ( $V_{GS} = 0$ )        | 500      | V          |
| $V_{GS}$  | Gate-Source Voltage                          | $\pm 30$ | V          |
| $I_D$     | Drain Current-continuous@ $T_C = 25^\circ C$ | 10       | A          |
| $P_{tot}$ | Total Dissipation@ $T_C = 25^\circ C$        | 125      | W          |
| $T_j$     | Max. Operating Junction Temperature          | 150      | $^\circ C$ |
| $T_{stg}$ | Storage Temperature Range                    | -55~150  | $^\circ C$ |



**isc N-Channel MOSFET Transistor****2SK1705**• ELECTRICAL CHARACTERISTICS ( $T_C=25^\circ\text{C}$ )

| SYMBOL        | PARAMETER                       | CONDITIONS                         | MIN | MAX       | UNIT     |
|---------------|---------------------------------|------------------------------------|-----|-----------|----------|
| $V_{(BR)DSS}$ | Drain-Source Breakdown Voltage  | $V_{GS}=0; I_D=1\text{mA}$         | 500 |           | V        |
| $V_{GS(th)}$  | Gate Threshold Voltage          | $V_{DS}=V_{GS}; I_D=1\text{mA}$    | 2   | 4         | V        |
| $R_{DS(on)}$  | Drain-Source On-Resistance      | $V_{GS}=10\text{V}; I_D=5\text{A}$ |     | 0.9       | $\Omega$ |
| $I_{GSS}$     | Gate-Body Leakage Current       | $V_{GS}= \pm 30\text{V}; V_{DS}=0$ |     | $\pm 100$ | nA       |
| $I_{DSS}$     | Zero Gate Voltage Drain Current | $V_{DS}=500\text{V}; V_{GS}=0$     |     | 1         | mA       |