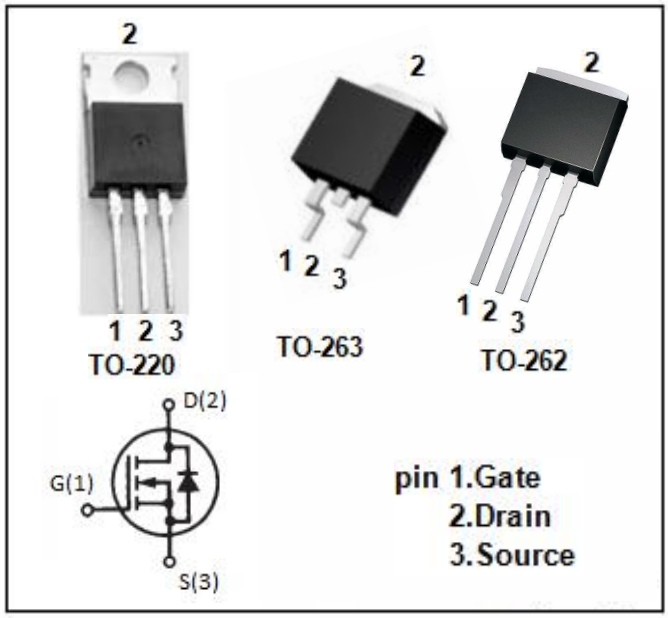
# isc N-Channel MOSFET Transistor 4N0806




## DESCRIPTION

- Drain Current –$I_D$= 80A@ $T_C$=25℃
- Drain Source Voltage- $V_{DSS}$=80V(Min)
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- Switch Mode Power Supply (SMPS)
- Uninterruptible Power Supply (UPS)
- High current switching applications
- DC-DC converter and motor drive applications

## ABSOLUTE MAXIMUM RATINGS($T_a$=25℃)

| SYMBOL | ARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{DSS}$ | Drain-Source Voltage ($V_{GS}$=0) | 80 | V |
| $V_{GS}$ | Gate-Source Voltage | ±20 | V |
| $I_D$ | Drain Current-continuous@ $T_C$=25℃ | 80 | A |
| $I_{DM}$ | Drain Current-Single Pluse | 320 | A |
| $P_{tot}$ | Total Dissipation@$T_C$=25℃ | 150 | W |
| $T_j$ | Max. Operating Junction Temperature | 150 | ℃ |
| $T_{stg}$ | Storage Temperature Range | -55~150 | ℃ |

## THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---|---|---|---|
| $R_{th\ j\text{-}c}$ | Thermal Resistance,Junction to Case | 0.833 | ℃/W |



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• **ELECTRICAL CHARACTERISTICS ($T_C$=25℃)**

| SYMBOL | PARAMETER | CONDITIONS | MIN | MAX | UNIT |
|---|---|---|---|---|---|
| $V_{(BR)DSS}$ | Drain-Source Breakdown Voltage | $V_{GS}$=0; $I_D$= 1mA | 80 | - | V |
| $V_{GS(TH)}$ | Gate Threshold Voltage | $V_{DS}$ = $V_{GS}$, $I_D$ = 250μA | 2.0 | 4.0 | V |
| $R_{DS(ON)}$ | Drain-Source On-stage Resistance | $V_{GS}$= 10V; $I_D$= 80A | - | 5.8 | mΩ |
| $I_{GSS}$ | Gate Source Leakage Current | $V_{GS}$= ±20V; $V_{DS}$= 0 | - | ±100 | nA |
| $I_{DSS}$ | Zero Gate Voltage Drain Current | $V_{DS}$ = 80V, $V_{GS}$ = 0V, $T_J$ = 25ºC | - | 1 | μA |
| $V_{SD}$ | Diode Forward Voltage | $I_S$=80A; $V_{GS}$=0V | - | 1.3 | V |

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