

isc N-Channel MOSFET Transistor

35N08

• FEATURES

- Drain Current $I_D = 35A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DSS} = 80V (Min)$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 0.055 \Omega (Max)$
- Fast Switching

• APPLICATIONS

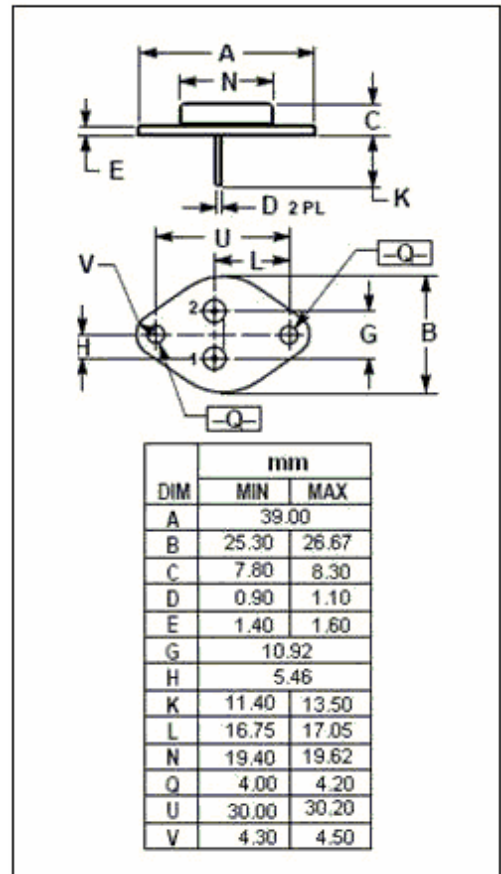
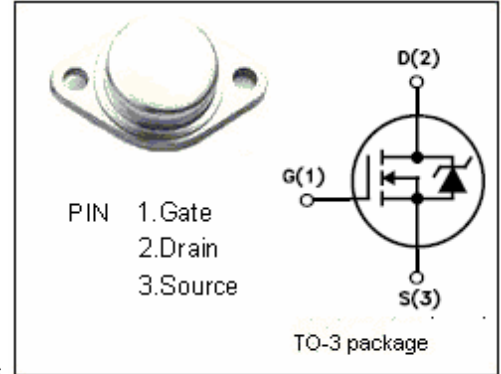
- Switching power supplies, converters, AC and DC motor controls

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|----------|------------|
| V_{DSS} | Drain-Source Voltage | 80 | V |
| V_{GS} | Gate-Source Voltage-Continuous | ± 30 | V |
| I_D | Drain Current-Continuous | 35 | A |
| I_{DM} | Drain Current-Single Plused | 100 | A |
| P_D | Total Dissipation @ $T_C = 25^\circ C$ | 150 | W |
| T_j | Max. Operating Junction Temperature | 150 | $^\circ C$ |
| T_{stg} | Storage Temperature | -55~150 | $^\circ C$ |

• THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|--------------|--------------------------------------|------|--------------|
| $R_{th j-c}$ | Thermal Resistance, Junction to Case | 0.83 | $^\circ C/W$ |



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• ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYPE | MAX | UNIT |
|---------------|---------------------------------|---|-----|------|-----------|---------------|
| $V_{(BR)DSS}$ | Drain-Source Breakdown Voltage | $V_{GS}=0; I_D=1\text{mA}$ | 80 | | | V |
| $V_{GS(th)}$ | Gate Threshold Voltage | $V_{DS}=V_{GS}; I_D=1\text{mA}$ | 2.0 | | 4.0 | V |
| V_{SD} | Diode Forward On-voltage | $I_S=17.5\text{A}; V_{GS}=0$ | | | 1.4 | V |
| $R_{DS(on)}$ | Drain-Source On-Resistance | $V_{GS}=10\text{V}; I_D=17.5\text{A}$ | | | 0.055 | Ω |
| I_{GSS} | Gate-Body Leakage Current | $V_{GS}=\pm 20\text{V}; V_{DS}=0$ | | | ± 100 | nA |
| I_{DSS} | Zero Gate Voltage Drain Current | $V_{DS}=65\text{V}; V_{GS}=0$ | | | 1 | μA |
| C_{iss} | Input Capacitance | $V_{DS}=25\text{V};$ $V_{GS}=0\text{V};$ $f_T=1\text{MHz}$ | | | 3000 | pF |
| C_{rss} | Reverse Transfer capacitance | | | | 600 | |
| C_{oss} | Output Capacitance | | | | 1500 | |
| t_r | Rise Time | $V_{GS}=10\text{V};$ $I_D=17.5\text{A};$ $V_{DD}=50\text{V};$ $R_L=50\Omega$ | | 225 | 450 | ns |
| $t_{d(on)}$ | Turn-on Delay Time | | | 40 | 100 | |
| t_f | Fall Time | | | 165 | 350 | |
| $t_{d(off)}$ | Turn-off Delay Time | | | 240 | 450 | |