

isc N-Channel MOSFET Transistor

25N40

• FEATURES

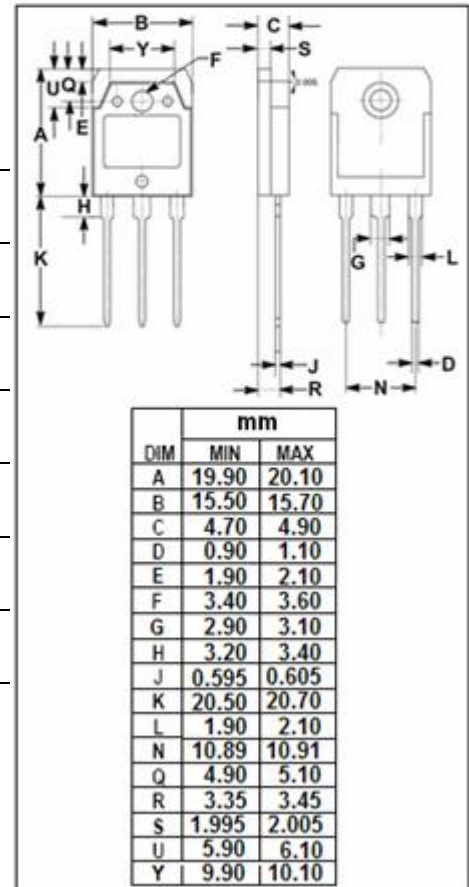
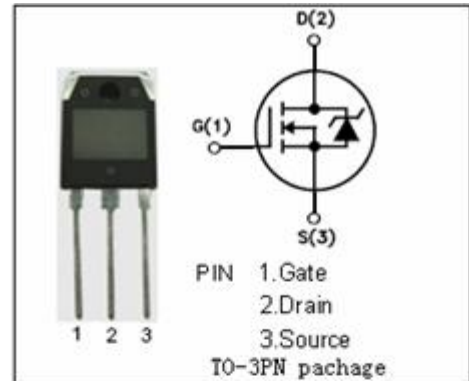
- Drain Current $I_D = 25A @ T_C = 25^\circ C$
- Drain Source Voltage
: $V_{DSS} = 400V (Min)$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 0.2 \Omega (Max)$
- Fast Switching

• APPLICATIONS

- Switch mode power supply.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|----------|------------|
| V_{DSS} | Drain-Source Voltage | 400 | V |
| V_{GS} | Gate-Source Voltage-Continuous | ± 30 | V |
| I_D | Drain Current-Continuous | 25 | A |
| P_D | Total Dissipation @ $T_C = 25^\circ C$ | 278 | W |
| T_j | Max. Operating Junction Temperature | 150 | $^\circ C$ |
| T_{stg} | Storage Temperature | -55~150 | $^\circ C$ |



isc N-Channel MOSFET Transistor**25N40****• ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYPE | MAX | UNIT |
|----------------------|---------------------------------|---|-----|------|-----|------|
| V _{(BR)DSS} | Drain-Source Breakdown Voltage | V _{GS} = 0; I _D =250μA | 400 | | | V |
| V _{GS(th)} | Gate Threshold Voltage | V _{DS} = V _{GE} ; I _D =250μA | 2.0 | | 4.0 | V |
| V _{SD} | Diode Forward On-voltage | I _S = 25A ;V _{GS} = 0 | | | 1.5 | V |
| R _{DS(on)} | Drain-Source On-Resistance | V _{GS} = 10V; I _D = 12.5A | | | 0.2 | Ω |
| I _{GSS} | Gate-Body Leakage Current | V _{GS} = ±30V;V _{DS} = 0 | | | ±10 | nA |
| I _{DSS} | Zero Gate Voltage Drain Current | V _{DS} =400V; V _{GS} = 0 | | | 1 | μA |
| C _{iss} | Input Capacitance | V _{DS} =25V; | | 2400 | | pF |
| C _{rss} | Reverse Transfer capacitance | V _{GS} =0V; | | 30 | | |
| C _{oss} | Output Capacitance | f _T =1MHz | | 390 | | |
| t _r | Rise Time | V _{GS} =10V; | | 100 | | ns |
| t _{d(on)} | Turn-on Delay Time | I _D =26A; | | 45 | | |
| t _f | Fall Time | V _{DD} =200V; | | 66 | | |
| t _{d(off)} | Turn-off Delay Time | R _G =25 Ω | | 115 | | |