

isc N-Channel Mosfet Transistor

BUZ80

• FEATURES

- High speed switching
- Low $R_{DS(ON)}$
- Easy driver for cost effective application
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

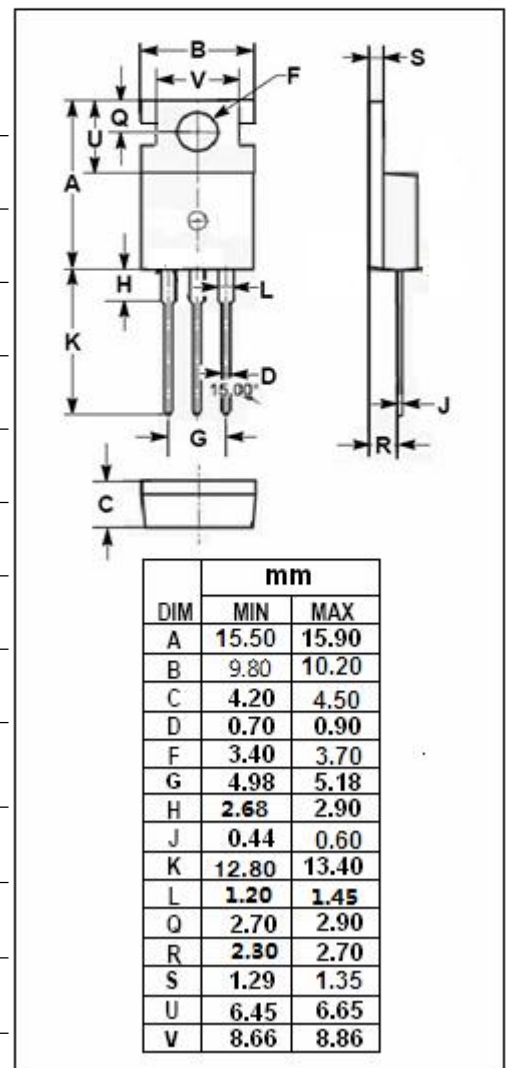
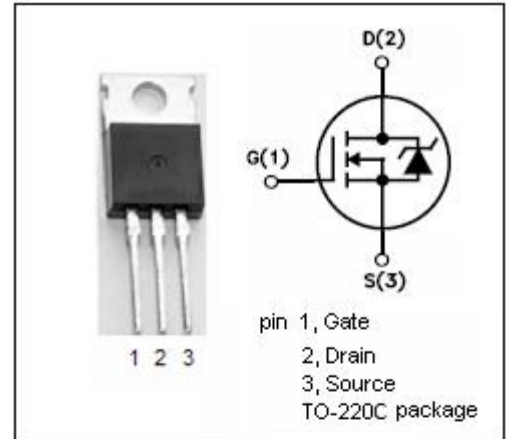
- High current , high speed switching
- Switching mode power supplies
- DC-DC & DC-AC converter

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|----------|-------------|
| V_{DSS} | Drain-Source Voltage ($V_{GS}=0$) | 800 | V |
| V_{GS} | Gate-Source Voltage | ± 20 | V |
| I_D | Drain Current-continuous@ $TC=25^{\circ}C$ | 3.4 | A |
| I_{DM} | Drain Current-Single Pulsed | 13 | A |
| P_{tot} | Total Dissipation@ $TC=25^{\circ}C$ | 100 | W |
| T_j | Max. Operating Junction Temperature | 150 | $^{\circ}C$ |
| T_{stg} | Storage Temperature Range | -65~150 | $^{\circ}C$ |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|--------------|--|------|---------------|
| $R_{th j-c}$ | Thermal Resistance,Junction to Case | 1.25 | $^{\circ}C/W$ |
| $R_{th j-a}$ | Thermal Resistance,Junction to Ambient | 62.5 | $^{\circ}C/W$ |



isc N-Channel Mosfet Transistor**BUZ80****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 | $V_{GS}=0; I_D=0.25\text{mA}$ | 800 | | | 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 | $I_S=6\text{A}; V_{GS}=0$ | | | 2.5 | V |
| $R_{DS(on)}$ | Drain-Source On-Resistance | $V_{GS}=10\text{V}; I_D=1.7\text{A}$ | | | 4 | 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 | $V_{DS}=800\text{V}; V_{GS}=0$ | | | 25 | μA |
| Gfs | Forward Transconductance | $V_{DS}=25\text{V}; I_D=1.7\text{A}$ | 1 | | | S |

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