

isc N-Channel MOSFET Transistor
AOD474
FEATURES

- Drain Current $-I_D = 10A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DSS} = 75V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 130m\ \Omega (\text{Max})$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

DESCRIPTION

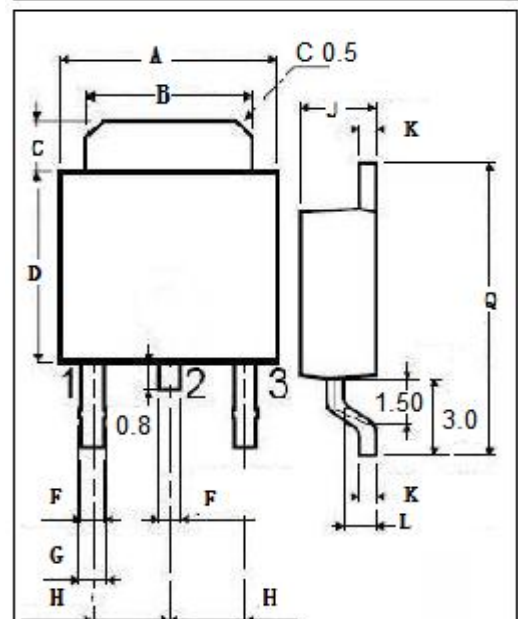
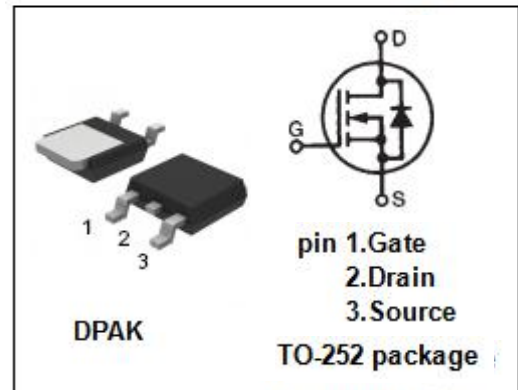
- Designed for use in switch mode power supplies and general purpose applications.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|----------|------------|
| V_{DSS} | Drain-Source Voltage | 75 | V |
| V_{GS} | Gate-Source Voltage-Continuous | ± 20 | V |
| I_D | Drain Current-Continuous | 10 | A |
| I_{DM} | Drain Current-Single Pluse | 18 | A |
| P_D | Total Dissipation @ $T_C = 25^\circ C$ | 28.5 | W |
| T_J | Max. Operating Junction Temperature | -55~175 | $^\circ C$ |
| T_{stg} | Storage Temperature | -55~175 | $^\circ C$ |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|--------------------------------------|-----|--------------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 5.2 | $^\circ C/W$ |



| DIM | mm | |
|-----|------|------|
| | MIN | MAX |
| A | 6.40 | 6.60 |
| B | 5.20 | 5.40 |
| C | 1.15 | 1.35 |
| D | 5.70 | 6.10 |
| F | 0.65 | |
| G | 0.75 | |
| H | 2.10 | 2.50 |
| J | 2.10 | 2.40 |
| K | 0.40 | 0.60 |
| L | 0.90 | 1.10 |
| Q | 9.90 | 10.1 |

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ELECTRICAL CHARACTERISTICS

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

| SYMBOL | PARAMETER | CONDITIONS | MIN | MAX | UNIT |
|---------------|---------------------------------|--|-----|------------|------------------|
| $V_{(BR)DSS}$ | Drain-Source Breakdown Voltage | $V_{GS}=0$; $I_D=0.25\text{mA}$ | 75 | | V |
| $V_{GS(th)}$ | Gate Threshold Voltage | $V_{DS}=V_{GS}$; $I_D=0.25\text{mA}$ | 1.2 | 2.4 | V |
| $R_{DS(on)}$ | Drain-Source On-Resistance | $V_{GS}=10\text{V}$; $I_D=5\text{A}$ $V_{GS}=10\text{V}$; $I_D=5\text{A}@T_J=125^\circ\text{C}$ | | 130 235 | $\text{m}\Omega$ |
| I_{GSS} | Gate-Body Leakage Current | $V_{GS}=\pm 20\text{V}$; $V_{DS}=0$ | | ± 100 | nA |
| I_{DSS} | Zero Gate Voltage Drain Current | $V_{DS}=75\text{V}$; $V_{GS}=0$ $V_{DS}=75\text{V}$; $V_{GS}=0@T_J=55^\circ\text{C}$ | | 1 5 | μA |
| V_{SD} | Forward On-Voltage | $I_S=1\text{A}$; $V_{GS}=0$ | | 1 | V |

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