

# isc N-Channel MOSFET Transistor

# AOD4124

**• FEATURES**

- With TO-252(DPAK) packaging
- High speed switching
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**• APPLICATIONS**

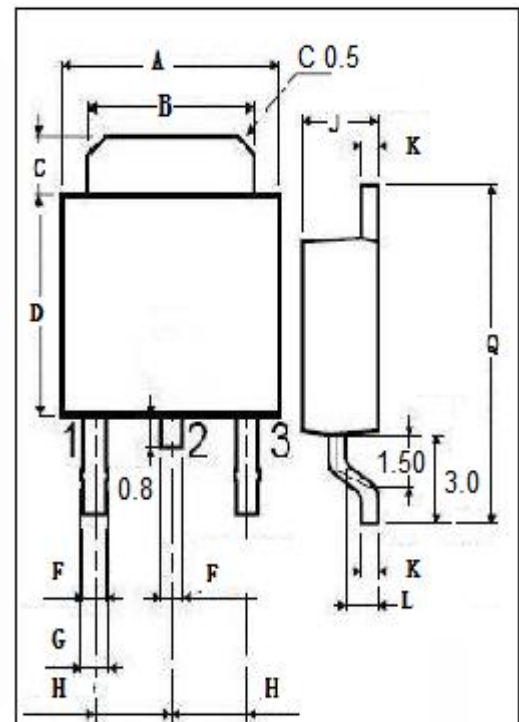
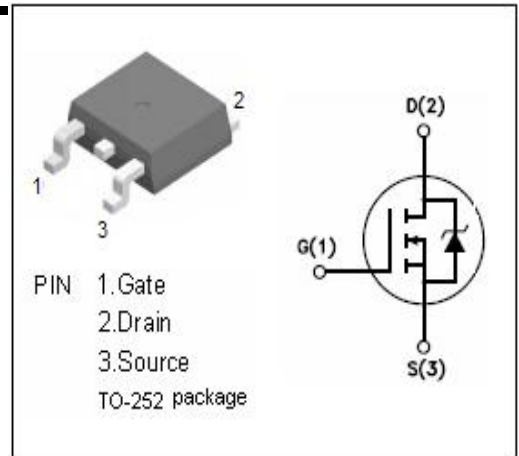
- Power supply
- Load switching
- General purpose applications
- Switching applications

**• ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	100	V
V <sub>GSS</sub>	Gate-Source Voltage	±25	V
I <sub>D</sub>	Drain Current-Continuous	54 38	A
I <sub>DM</sub>	Drain Current-Single Pulsed	130	A
P <sub>D</sub>	Total Dissipation	150	W
T <sub>j</sub>	Operating Junction Temperature	-50~150	°C
T <sub>stg</sub>	Storage Temperature	-50~150	°C

**• THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	1.0	°C/W
Rth(ch-a)	Channel-to-ambient thermal resistance	40	°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<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> = 0.25mA	100			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =±25V; I <sub>D</sub> =0.25mA	2.8		4.0	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =1.5A; T <sub>J</sub> =25°C T <sub>J</sub> =125°C		16.7 31.4	21 38	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±25V; V <sub>DS</sub> = 0V			±0.1	μA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> = 100V; V <sub>GS</sub> = 0V; T <sub>J</sub> =25°C T <sub>J</sub> =125°C			10 50	μA
V <sub>SDF</sub>	Diode forward voltage	I <sub>SD</sub> =1A, V <sub>GS</sub> = 0 V			1.0	V