

**isc N-Channel MOSFET Transistor**
**AOD2904**
**• FEATURES**

- Static drain-source on-resistance:  
 $R_{ds(on)} \leq 10m\Omega @ 10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**• DESCRIPTION**

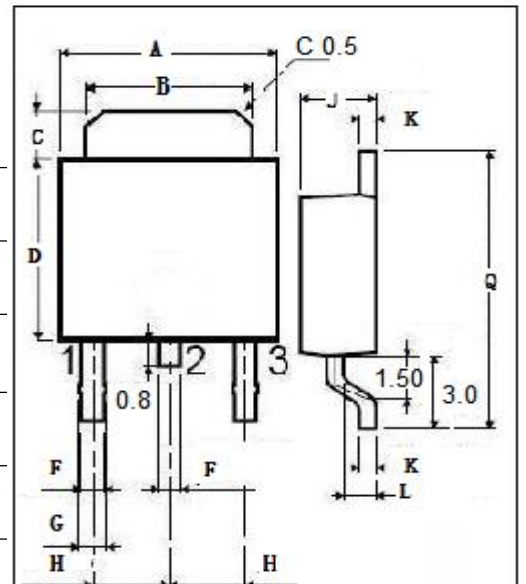
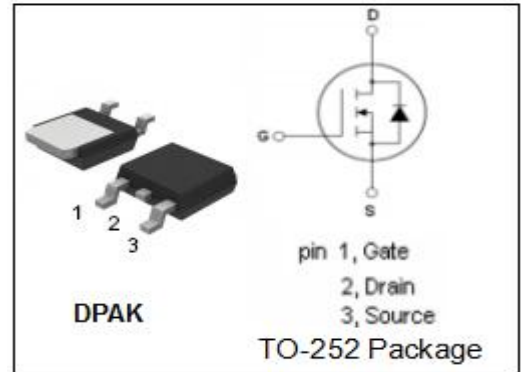
- Synchronous Rectification in DC/DC and AC/DC Converters
- Industrial and Motor Drive applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	100	V
$V_{GS}$	Gate-Source Voltage	$\pm 20$	V
$I_D$	Drain Current-Continuous	70	A
$I_{DM}$	Drain Current-Single Pulsed	180	A
$P_D$	Total Dissipation @ $T_c=25^\circ C$	125	W
$T_j$	Max. Operating Junction Temperature	175	$^\circ C$
$T_{stg}$	Storage Temperature	-55~175	$^\circ C$

**• THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Channel-to-case thermal resistance	1.2	$^\circ C/W$



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

## isc N-Channel MOSFET Transistor

## AOD2904

## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$BV_{DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0V; I_D=250\ \mu\text{A}$	100			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=250\ \mu\text{A}$	2.3		3.4	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10V; I_D=20A$			10	$\text{m}\Omega$
		$V_{GS}=6V; I_D=20A$			12.5	$\text{m}\Omega$
$I_{GSS}$	Gate-Source Leakage Current	$V_{GS}=\pm 20V; V_{DS}=0V$			$\pm 100$	nA
$I_{DSS}$	Drain-Source Leakage Current	$V_{DS}=100V; V_{GS}=0V$			1	$\mu\text{A}$
		$V_{DS}=800V; V_{GS}=0V; T_C=55^{\circ}\text{C}$			5	$\mu\text{A}$
$V_{SD}$	Diode forward voltage	$I_S=1A, V_{GS}=0V$			1	V

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