

isc N-Channel MOSFET Transistor

AOD2606

• 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

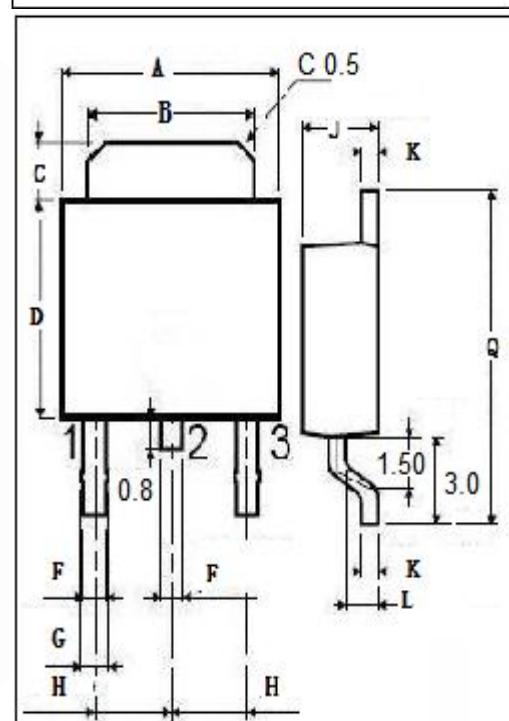
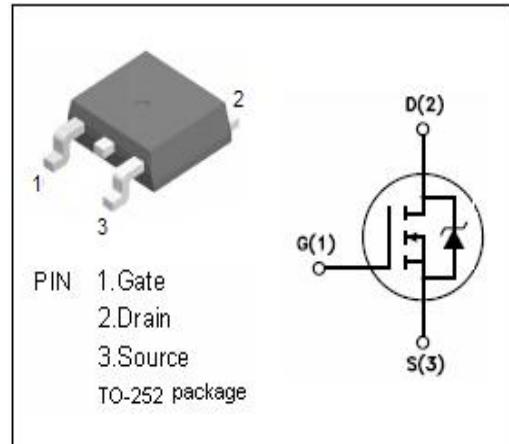
- Power supply
- DC-DC converters
- Motor control
- Switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	60	V
V_{GSS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-Continuous	46 36	A
I_{DM}	Drain Current-Single Pulsed	184	A
P_D	Total Dissipation	150	W
T_j	Operating Junction Temperature	-55~175	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~175	$^\circ\text{C}$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	1.0	$^\circ\text{C}/\text{W}$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	50	$^\circ\text{C}/\text{W}$



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**AOD2606****ELECTRICAL CHARACTERISTICS** $T_c=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	$\text{V}_{\text{GS}}=0\text{V}; \text{I}_D= 0.25\text{mA}$	60			V
$\text{V}_{\text{GS}(\text{th})}$	Gate Threshold Voltage	$\text{V}_{\text{DS}}=\pm 20\text{V}; \text{I}_D=0.25\text{mA}$	2.5		3.5	V
$\text{R}_{\text{DS(on)}}$	Drain-Source On-Resistance	$\text{V}_{\text{GS}}= 10\text{V}; \text{I}_D=20\text{A}; \text{T}_j=25^\circ\text{C}$ $\text{T}_j=125^\circ\text{C}$		5.6 8.8	6.8 10.6	$\text{m}\Omega$
I_{GSS}	Gate-Source Leakage Current	$\text{V}_{\text{GS}}= \pm 20\text{V}; \text{V}_{\text{DS}}= 0\text{V}$			± 0.1	μA
I_{DSS}	Drain-Source Leakage Current	$\text{V}_{\text{DS}}= 60\text{V}; \text{V}_{\text{GS}}= 0\text{V}; \text{T}_j=25^\circ\text{C}$ $\text{T}_j=55^\circ\text{C}$			1 5	μA
V_{SDF}	Diode forward voltage	$\text{I}_{\text{SD}}=1\text{A}, \text{V}_{\text{GS}} = 0 \text{ V}$			1.0	V