

## Isc N-Channel MOSFET Transistor

**AOD2N100**

### • FEATURES

- With To-252(DPAK) package
- Low input capacitance and gate charge
- Low gate input resistance
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### • APPLICATIONS

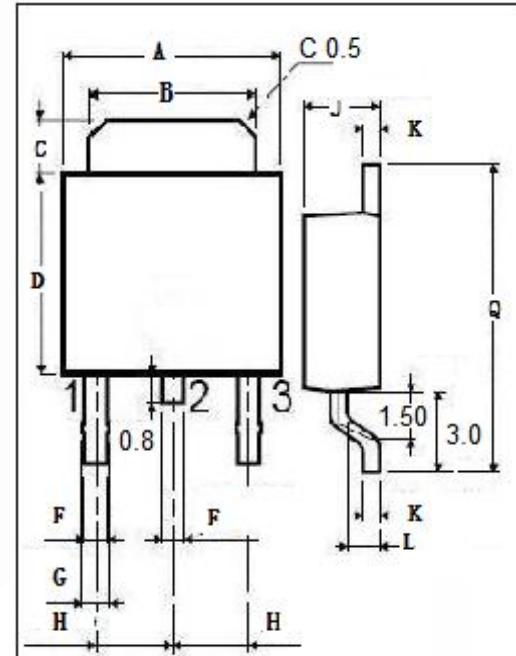
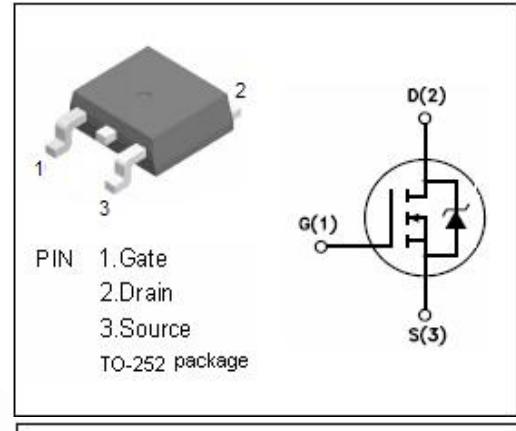
- Switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	1000	V
$V_{GSS}$	Gate-Source Voltage	$\pm 30$	V
$I_D$	Drain Current-Continuous $T_c=25^\circ\text{C}$ $T_c=100^\circ\text{C}$	2 1.2	A
$I_{DM}$	Drain Current-Single Pulsed	7	A
$P_D$	Total Dissipation @ $T_c=25^\circ\text{C}$	83	W
$T_{ch}$	Max. Operating Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55~150	$^\circ\text{C}$

### • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	1.5	$^\circ\text{C}/\text{W}$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	55	$^\circ\text{C}/\text{W}$



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
O	9.90	10.1

**Isc N-Channel MOSFET Transistor****AOD2N100****ELECTRICAL CHARACTERISTICS** $T_c=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$\text{BV}_{\text{DSS}}$	Drain-Source Breakdown Voltage	$\text{V}_{\text{GS}}=0\text{V}; \text{I}_D= 0.25\text{mA}$	1000			V
$\text{V}_{\text{GS}(\text{th})}$	Gate Threshold Voltage	$\text{V}_{\text{DS}}=5\text{V}; \text{I}_D=0.25\text{mA}$	3.3		4.5	V
$\text{R}_{\text{DS(on)}}$	Drain-Source On-Resistance	$\text{V}_{\text{GS}}= 10\text{V}; \text{I}_D=1\text{A}$		7.5	9	$\Omega$
$\text{I}_{\text{GSS}}$	Gate-Source Leakage Current	$\text{V}_{\text{GS}}= \pm 30\text{V}; \text{V}_{\text{DS}}= 0\text{V}$			$\pm 0.1$	$\mu\text{ A}$
$\text{I}_{\text{DSS}}$	Drain-Source Leakage Current	$\text{V}_{\text{DS}}=1000\text{V}; \text{V}_{\text{GS}}= 0\text{V}; \text{T}_j=25^\circ\text{C}$ $\text{V}_{\text{DS}}=800\text{V}; \text{V}_{\text{GS}}= 0\text{V}; \text{T}_j=125^\circ\text{C}$			1 10	$\mu\text{ A}$
$\text{V}_{\text{SDF}}$	Diode forward voltage	$\text{I}_{\text{SD}}=1\text{A}, \text{V}_{\text{GS}} = 0 \text{ V}$			1	V