

# isc N-Channel MOSFET Transistor

## AOD458

#### FEATURES

- Drain Current –I\_D= 14A@ T\_C=25 $^\circ\!\mathrm{C}$
- Drain Source Voltage-: V<sub>DSS</sub>= 250V(Min)
- Static Drain-Source On-Resistance
- : R<sub>DS(on)</sub> = 0.28 Ω (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.

SYMBOL	PARAMETER	VALUE	UNIT	
V <sub>DSS</sub>	Drain-Source Voltage	250	V	
V <sub>GS</sub>	Gate-Source Voltage-Continuous	±30	V	
ID	Drain Current-Continuous	14	A	
I <sub>DM</sub>	Drain Current-Single Pluse	32	A	
P <sub>D</sub>	Total Dissipation @T <sub>c</sub> =25℃	150	w	
TJ	Max. Operating Junction Temperature	-50~175	°C	
T <sub>stg</sub>	Storage Temperature	-50~175	°C	

## ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

# рак ріп 1.Gate 2.Drain 3.Source TO-252 package

	mm		
DIM	MIN	MAX	
Α	6.40	6.60	
В	5.20	5.40	
С	1.15	1.35	
D	5.70	6.10	
F	0.65		
G	0.75		
Н	2.10	2.50	
J	2.10	2.40	
K	0.40	0.60	
L	0.90	1.10	
Q	9.90	10.1	

#### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	1.0	°C/W

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### **ELECTRICAL CHARACTERISTICS**

#### $T_c=25^{\circ}C$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	МАХ	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = 0.25mA	250		V
V <sub>GS(th)</sub>	Gate Threshold Voltage	$V_{DS}$ = $V_{GS}$ ; $I_D$ = 0.25mA	3	4.5	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =7A		0.28	Ω
lgss	Gate-Body Leakage Current	V <sub>GS</sub> = ±30V;V <sub>DS</sub> = 0		±100	nA
loss	Zero Gate Voltage Drain Current	V <sub>DS</sub> = 250V; V <sub>GS</sub> = 0 V <sub>DS</sub> = 200V; V <sub>GS</sub> = 0@T <sub>J</sub> =125℃		1 10	μA
V <sub>SD</sub>	Forward On-Voltage	I <sub>S</sub> = 1A; V <sub>GS</sub> = 0		1	V



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