

isc N-Channel MOSFET Transistor

AOT16N50

FEATURES

- Drain Current –I_D= 16A@ T_C=25 °C
- Drain Source Voltage-
 - : V_{DSS}= 500V(Min)
- Static Drain-Source On-Resistance
 - : $R_{DS(on)} = 0.37 \Omega (Max)$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

pin 1.Gate 2.Drain 3.Source TO-220 package

DESCRIPTION

 Designed for use in switch mode power supplies and general purpose applications.

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{DSS}	Drain-Source Voltage	500	V
V _{GS}	Gate-Source Voltage-Continuous	±30	V
I _D	Drain Current-Continuous	16	А
I _{DM}	Drain Current-Single Pluse	64	А
P _D	Total Dissipation @T _C =25℃	278	W
TJ	Max. Operating Junction Temperature	-55~150	°C
T _{stg}	Storage Temperature	-55~150	$^{\circ}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	0.45	°C/W

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- 6	e)	- 1	
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Κ '	11 11	11		
	11 12	-II-D		
	11 11	15,00° D	L	J- 1
	9 9		- 1	7-3
1	→ G	· -	->	R-
С				
C				
C ↑		m	m	1
<u>c</u>		m	7.1.7]
c A	DIM	m MIN	MAX]
¢ †	DIM A	MIN 15,50	7.1.7	
<u>c</u>	DIM A B	MIN 15,50 9.80	MAX 15.90 10.20	
<u>c</u>	DIM A	MIN 15,50 9.80 4.20	MAX 15.90 10.20 4.50	
4	DIM A B	MIN 15.50 9.80 4.20 0.70	MAX 15.90 10.20 4.50 0.90 3.70	
4	DIM A B C D F	MIN 15.50 9.80 4.20 0.70 3.40 4.98	MAX 15.90 10.20 4.50 0.90 3.70 5.18	
<u>c</u>	DIM A B C D	MIN 15.50 9.80 4.20 0.70 3.40 4.98 2.68	MAX 15.90 10.20 4.50 0.90 3.70	
<u>c</u>	DIM A B C D F G	MIN 15.50 9.80 4.20 0.70 3.40 4.98	MAX 15.90 10.20 4.50 0.90 3.70 5.18	8
<u>c</u>	DIM A B C D F G	MIN 15.50 9.80 4.20 0.70 3.40 4.98 2.68 0.44	MAX 15.90 10.20 4.50 0.90 3.70 5.18 2.90	8
<u>c</u>	DIM A B C D F G	MIN 15.50 9.80 4.20 0.70 3.40 4.98 2.68	MAX 15.90 10.20 4.50 0.90 3.70 5.18 2.90 0.60 13.40	
4	DIM A B C D F G H J	MIN 15.50 9.80 4.20 0.70 3.40 4.98 2.68 0.44 12.80	MAX 15.90 10.20 4.50 0.90 3.70 5.18 2.90 0.60	
4	DIM A B C D F G H J K	MIN 15.50 9.80 4.20 0.70 3.40 4.98 2.68 0.44 12.80	MAX 15.90 10.20 4.50 0.90 3.70 5.18 2.90 0.60 13.40	
4	DIM A B C D F G H J K	MIN 15.50 9.80 4.20 0.70 3.40 4.98 2.68 0.44 12.80 1.20 2.70	MAX 15.90 10.20 4.50 0.90 3.70 5.18 2.90 0.60 13.40 1.45 2.90	
4	DIM A B C D F G H J K L Q	MIN 15.50 9.80 4.20 0.70 3.40 4.98 2.68 0.44 12.80 1.20 2.70 2.30	MAX 15.90 10.20 4.50 0.90 3.70 5.18 2.90 0.60 13.40 1.45 2.90 2.70	

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D = 0.25mA	500			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = 5V; I _D = 0.25mA	3.3		4.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 8A			0.37	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±30V;V _{DS} = 0			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 500V; V _{GS} = 0 V _{DS} = 400V; V _{GS} = 0@T _J =125°C			1 10	μА
V _{SD}	Forward On-Voltage	I _S = 1A; V _{GS} = 0			1	V



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