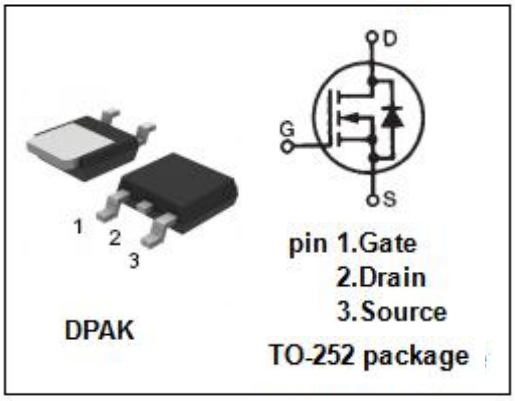
isc N-Channel MOSFET Transistor AOD4146

FEATURES

- Drain Current –I_D= 55A@ T_C=25℃
- Drain Source Voltage-
  : V_{DSS}=30V(Min)
- Static Drain-Source On-Resistance
  : $R_{DS(on)}$ =5.6mΩ(Max)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



DESCRIPTION

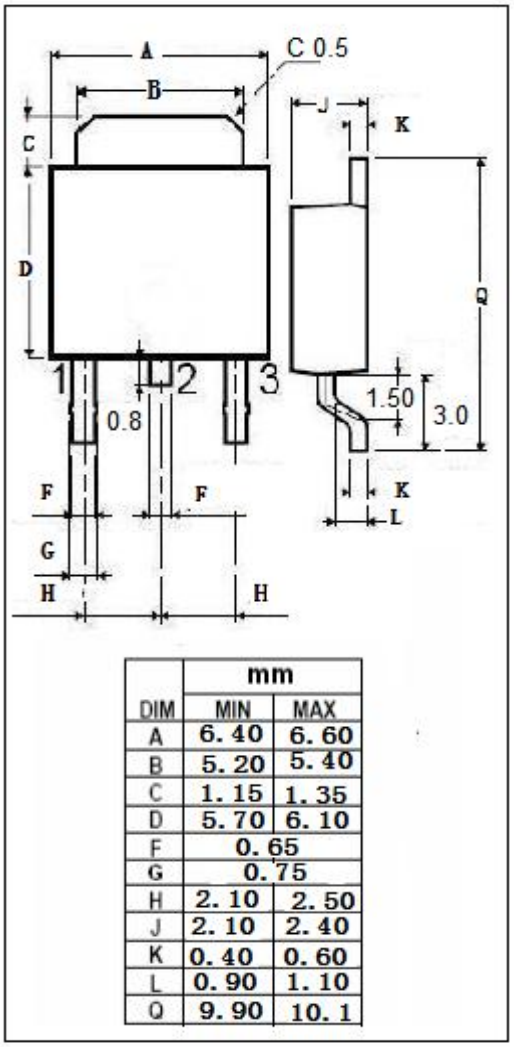
- Designed for use in switch mode power supplies and general purpose applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	30	V
V_{GS}	Gate-Source Voltage-Continuous	±20	V
I_D	Drain Current-Continuous	55	A
I_{DM}	Drain Current-Single Pluse	190	A
P_D	Total Dissipation @T_C=25℃	62	W
T_J	Max. Operating Junction Temperature	-55~175	℃
T_{stg}	Storage Temperature	-55~175	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	2.4	℃/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

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0; I_D= 0.25mA	30		V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D= 0.25mA	1.6	3.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D=20A V_{GS}= 10V; I_D=20A@T_J=125℃		5.6 8.9	mΩ
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±20V;V_{DS}= 0		±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}=30V; V_{GS}= 0 V_{DS}=30V; V_{GS}= 0@T_J=55℃		100 500	μA
V_{SD}	Forward On-Voltage	I_S= 1A; V_{GS}= 0		1	V