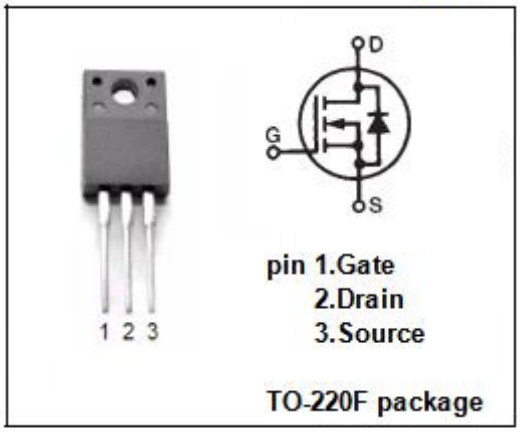
isc N-Channel MOSFET Transistor AOTF42S60L

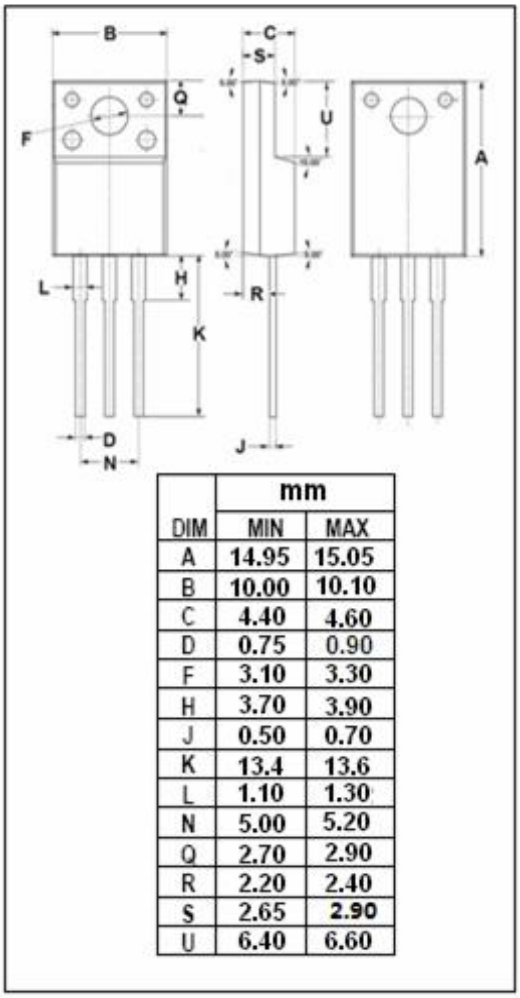
- **FEATURES**
- Drain Current –I_D= 39A@ T_C=25℃
- Drain Source Voltage-
  : V_{DSS}= 600V(Min)
- Static Drain-Source On-Resistance
  : $R_{DS(on)}$ = 99mΩ(Max)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



- **DESCRITION**
- Be suitable for synchronous rectification for server and general purpose applications

- **ABSOLUTE MAXIMUM RATINGS(T_a=25℃)**

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	600	V
V_{GS}	Gate-Source Voltage	±30	V
I_D	Drain Current-Continuous	39	A
I_{DM}	Drain Current-Single Pulsed	166	A
P_D	Total Dissipation @T_C=25℃	37.9	W
T_j	Max. Operating Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature	-55~150	℃



DIM	mm MIN	MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.90
F	3.10	3.30
H	3.70	3.90
J	0.50	0.70
K	13.4	13.6
L	1.10	1.30
N	5.00	5.20
Q	2.70	2.90
R	2.20	2.40
S	2.65	2.90
U	6.40	6.60

- **THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	3.3	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	V_{GS}=0V; I_D = 250 μA	600			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= 5V; I_D = 250 μA	2.5		3.8	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D= 21A V_{GS}= 10V; I_D= 21A;T_J= 150℃			99 280	mΩ
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±30V;V_{DS}= 0V			±100	nA
I_{DSS}	Drain-Source Leakage Current	V_{DS}= 600V; V_{GS}= 0V V_{DS}= 480V; V_{GS}= 0V;T_J= 150℃		10	1	μA
V_{SD}	Diode forward voltage	Is= 21A; V_{GS} = 0V		0.84		V

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