

isc N-Channel MOSFET Transistor

AOK42S60L

• FEATURES

- Drain Current $-I_D = 39A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DSS} = 600V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 99m\Omega (\text{Max})$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

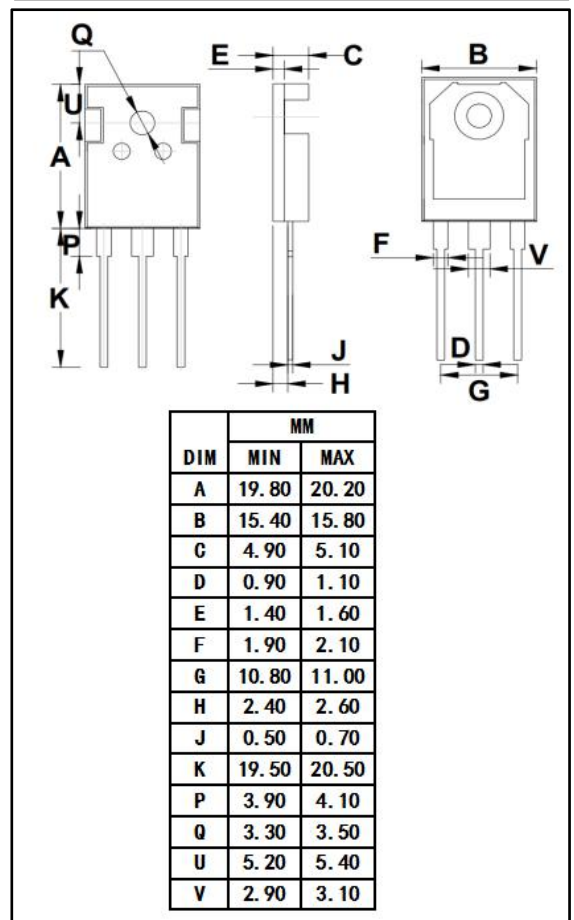
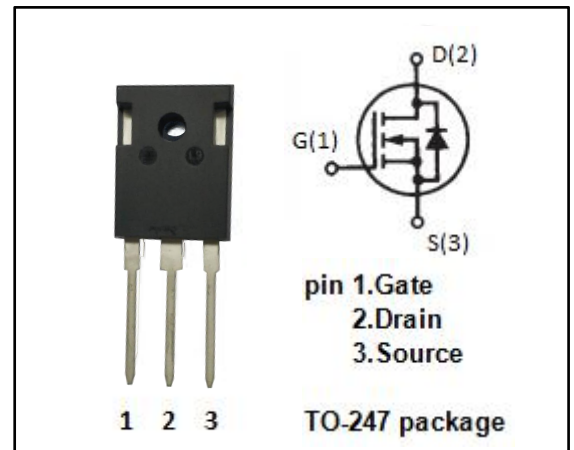
- Be suitable for synchronous rectification for server and general purpose applications

• ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ C$)

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 @ $T_C = 25^\circ C$	417	W
T_j	Max. Operating Junction Temperature	-55~150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	0.3	$^\circ C/W$



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ELECTRICAL CHARACTERISTICS

T_c=25°C 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°C			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°C		10	1	μA
V _{SD}	Diode forward voltage	I _S = 21A; V _{GS} = 0V		0.84		V

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