

# isc N-Channel MOSFET Transistor

# AOT412

### • FEATURES

- Drain Current  $-I_D = 60A @ T_C = 25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS} = 100V(\text{Min})$
- Static Drain-Source On-Resistance  
:  $R_{DS(on)} = 15.8m\Omega (\text{Max})$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### • DESCRIPTION

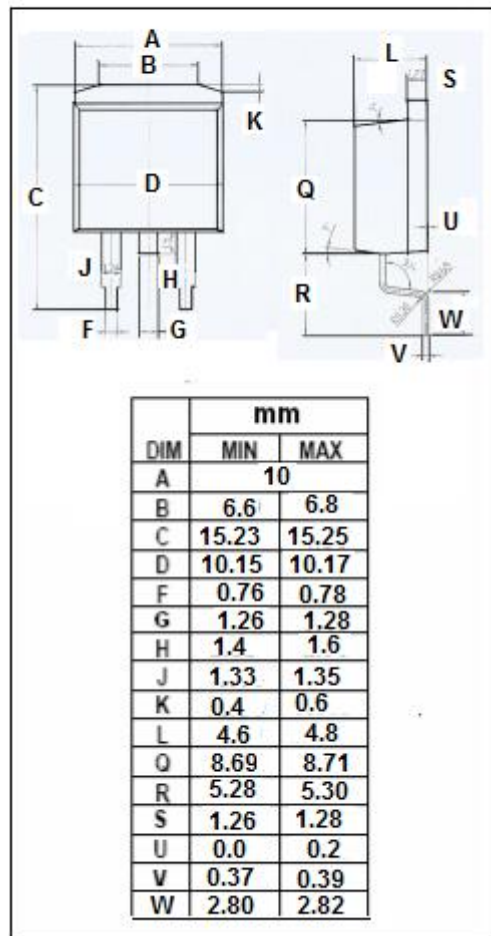
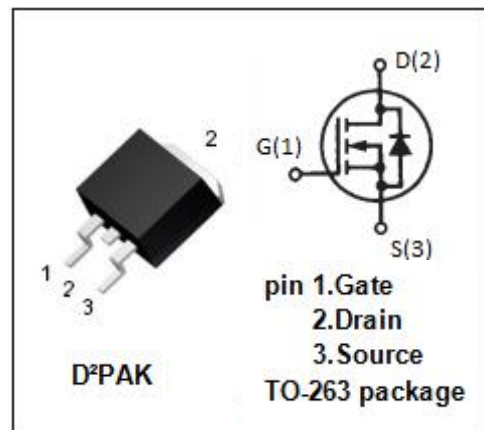
- Be suitable for synchronous rectification for server and general purpose applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	100	V
$V_{GS}$	Gate-Source Voltage	$\pm 25$	V
$I_D$	Drain Current-Continuous	60	A
$I_{DM}$	Drain Current-Single Pulsed	140	A
$P_D$	Total Dissipation @ $T_C = 25^\circ C$	150	W
$T_j$	Max. Operating Junction Temperature	-55~175	$^\circ C$
$T_{stg}$	Storage Temperature	-55~175	$^\circ C$

### • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	1	$^\circ C/W$



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## ELECTRICAL CHARACTERISTICS

T<sub>c</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> = 250 μ A	100		V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> = 250 μ A	2.6	3.8	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> = 20A V <sub>GS</sub> = 10V; I <sub>D</sub> = 20A; T <sub>J</sub> = 125°C		15.8 30	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±25V; V <sub>DS</sub> = 0V		±100	nA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> = 100V; V <sub>GS</sub> = 0V V <sub>DS</sub> = 100V; V <sub>GS</sub> = 0V; T <sub>J</sub> = 55°C		10 50	μ A
V <sub>SD</sub>	Diode forward voltage	I <sub>S</sub> = 1A; V <sub>GS</sub> = 0V		1	V

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