

isc N-Channel MOSFET Transistor

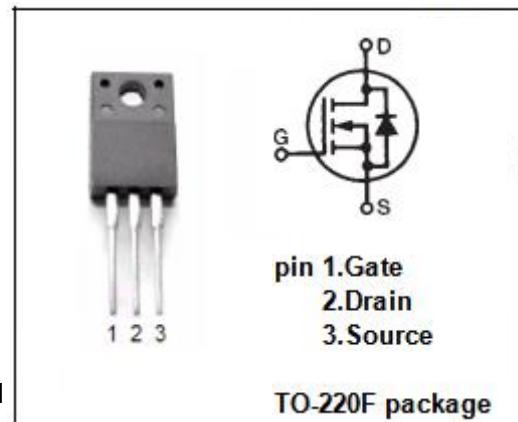
AOTF20N40

FEATURES

- Drain Current – $I_D=20A$ @ $T_C=25^\circ C$
- Drain Source Voltage-
: $V_{DSS}=400V$ (Min)
- Static Drain-Source On-Resistance
: $R_{DS(on)}=0.25 \Omega$ (Max)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

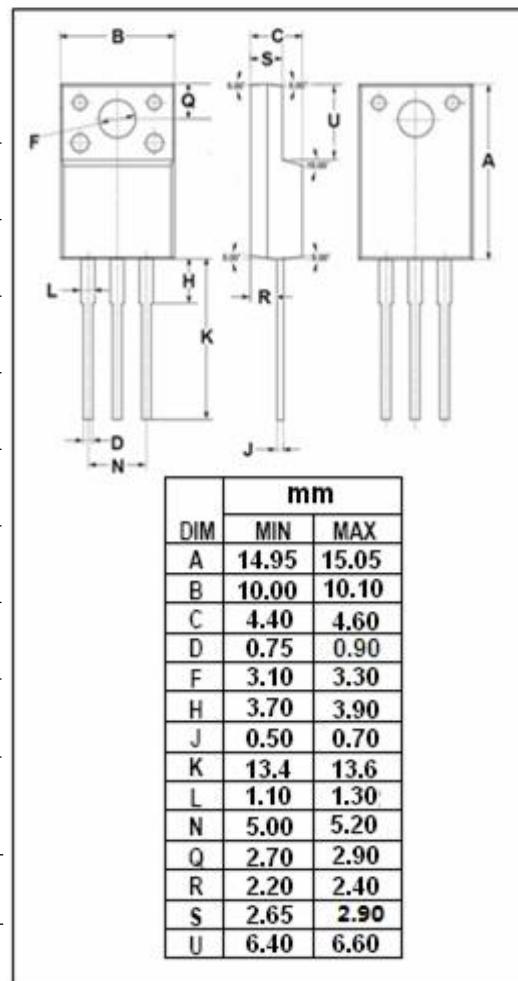
DESCRIPTION

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



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	400	V
V_{GS}	Gate-Source Voltage-Continuous	± 30	V
I_D	Drain Current-Continuous	20	A
I_{DM}	Drain Current-Single Pulse	54	A
P_D	Total Dissipation @ $T_C=25^\circ C$	50	W
T_J	Max. Operating Junction Temperature	-55~150	°C
T_{stg}	Storage Temperature	-55~150	°C



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	2.5	°C/W

isc N-Channel MOSFET Transistor**AOTF20N40****ELECTRICAL CHARACTERISTICS** $T_c=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(\text{BR})\text{DSS}}$	Drain-Source Breakdown Voltage	$V_{\text{GS}}=0$; $I_D=0.25\text{mA}$	400		V
$V_{\text{GS}(\text{th})}$	Gate Threshold Voltage	$V_{\text{DS}}=5\text{V}$; $I_D=0.25\text{mA}$	3.0	4.3	V
$R_{\text{DS}(\text{on})}$	Drain-Source On-Resistance 	$V_{\text{GS}}=10\text{V}$; $I_D=10\text{A}$		0.25	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{\text{GS}}= \pm 30\text{V}$; $V_{\text{DS}}=0$		± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{\text{DS}}=400\text{V}$; $V_{\text{GS}}=0$ $V_{\text{DS}}=320\text{V}$; $V_{\text{GS}}=0$ @ $T_J=125^\circ\text{C}$		1 10	μA
V_{SD}	Forward On-Voltage	$I_S=1\text{A}$; $V_{\text{GS}}=0$		1	V

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