

isc N-Channel MOSFET Transistor

FQA160N08

FEATURES

- Drain Current $-I_D=160A@T_C=25^\circ C$
- Drain Source Voltage-
: $V_{DSS}=80V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)}=7m\Omega(\text{Max})@V_{GS}=10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

DESCRIPTION

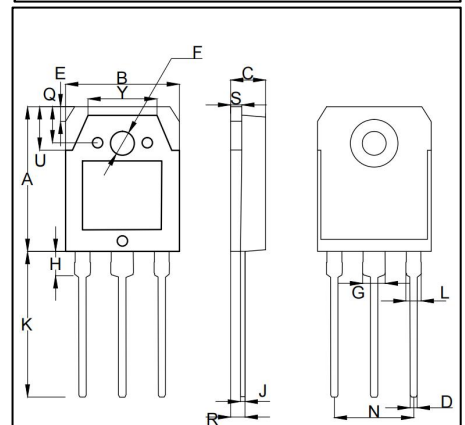
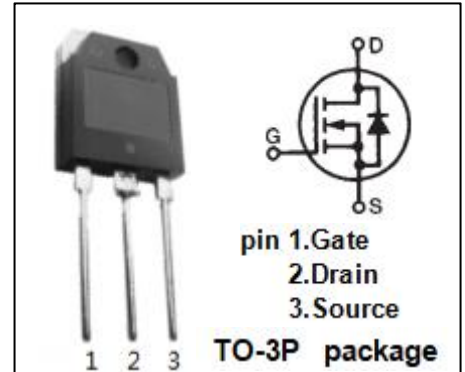
- motor drive, DC-DC converter, power switch and solenoid drive.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	80	V
V_{GS}	Gate-Source Voltage-Continuous	± 25	V
I_D	Drain Current-Continuous	160	A
I_{DM}	Drain Current-Single Pluse	640	A
P_D	Total Dissipation @ $T_C=25^\circ C$	375	W
T_J	Max. Operating Junction Temperature	175	$^\circ C$
T_{stg}	Storage Temperature	-55~175	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	0.4	$^\circ C/W$



DIM	mm	
	MIN	MAX
A	19.70	20.20
B	15.45	15.75
C	4.70	4.90
D	0.90	1.10
E	1.80	2.20
F	3.40	3.60
G	2.95	3.25
H	3.10	3.40
J	0.500	0.700
K	19.80	20.20
L	2.00	2.20
M	13.30	13.90
N	10.80	11.00
Q	4.25	5.10
R	1.75	2.30
S	1.40	1.60
U	5.90	6.20
Y	9.45	9.75

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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0$; $I_D=0.25\text{mA}$	80	--	V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}$; $I_D=0.25\text{mA}$	2.0	4.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}$; $I_D=80\text{A}$	--	7	$\text{m}\Omega$
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 25\text{V}$; $V_{DS}=0$	--	± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=80\text{V}$; $V_{GS}=0$	--	1	μA
V_{SD}	Forward On-Voltage	$I_S=160\text{A}$; $V_{GS}=0$	--	1.5	V

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