

isc N-Channel MOSFET Transistor

FQA8N100C

• FEATURES

- With TO-3PN packaging
- High speed switching
- Standard level gate drive
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

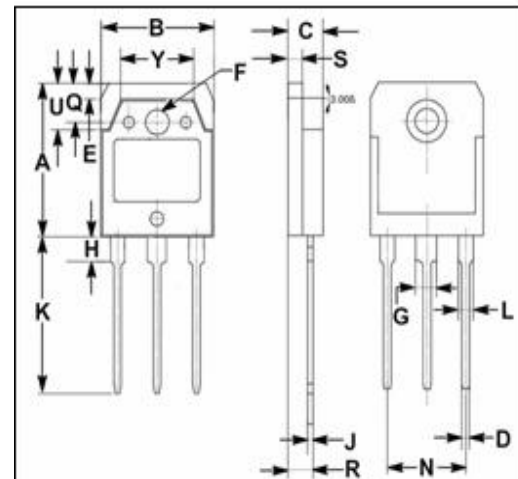
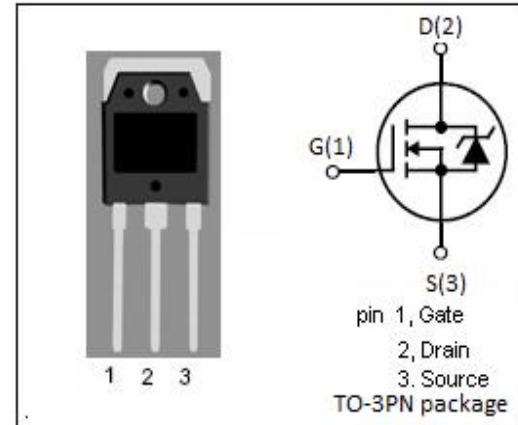
- Power supply
- Switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	1000	V
V_{GSS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-Continuous @ $T_c=25^{\circ}\text{C}$ $T_c=100^{\circ}\text{C}$	8 5	A
I_{DM}	Drain Current-Single Pulsed	32	A
P_D	Total Dissipation	225	W
T_j	Operating Junction Temperature	-55~150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~150	$^{\circ}\text{C}$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	0.56	$^{\circ}\text{C}/\text{W}$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	40	$^{\circ}\text{C}/\text{W}$



DIM	mm	
	MIN	MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D = 0.25mA	1000			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =10V; I _D =0.25mA	3.0		5.0	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =4A		1.2	1.45	Ω
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±30V; V _{DS} = 0V			±0.1	μ A
I _{DSS}	Drain-Source Leakage Current	V _{DS} = 1000V; V _{GS} = 0v; T _j =25°C V _{DS} = 800V; V _{GS} = 0v; T _j =125°C			10 100	μ A
V _{SDF}	Diode forward voltage	I _{SD} =8A, V _{GS} = 0 V			1.4	V

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