

N-Channel MOSFET Transistor

IRF630N

DESCRIPTION

- Drain Current $-I_D = 9.3A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DSS} = 200V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 0.3 \Omega (\text{Max})$
- Fast Switching Speed
- Low Drive Requirement

APPLICATIONS

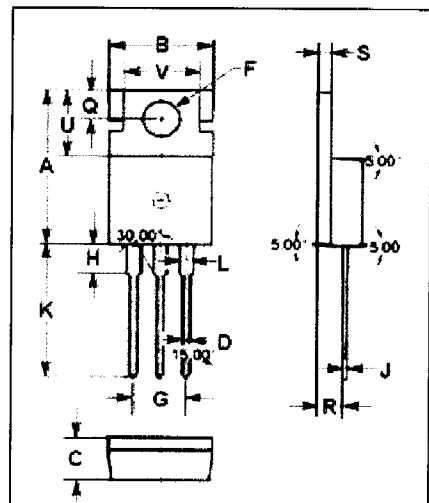
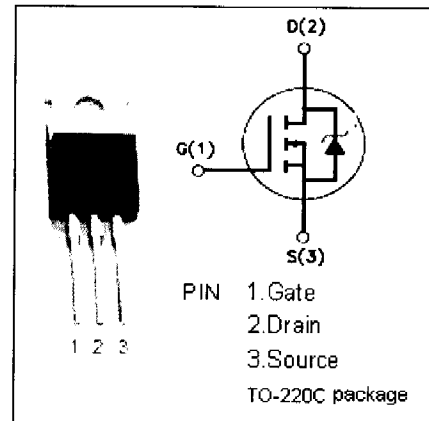
- This device is n-channel, enhancement mode, power MOSFET designed especially for high power, high speed applications, such as switching power supplies, UPS, AC and DC motor controls, relay and solenoid drivers and high energy pulse circuits.

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

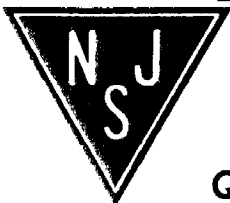
SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	200	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $TC=25^\circ C$	9.3	A
P_D	Total Dissipation@ $TC=25^\circ C$	82	W
T_j	Max. Operating Junction Temperature	175	$^\circ C$
T_{stg}	Storage Temperature Range	-55~175	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Thermal Resistance, Junction to Case	1.83	$^\circ C/W$
$R_{th(j-a)}$	Thermal Resistance, Junction to Ambient	62	$^\circ C/W$



DIM	mm	
	MIN	MAX
A	15.70	15.90
B	9.90	10.10
C	4.20	4.40
D	0.70	0.90
F	3.40	3.60
G	4.98	5.18
H	2.70	2.90
J	0.44	0.46
K	13.20	13.40
L	1.10	1.30
Q	2.70	2.90
R	2.50	2.70
S	1.29	1.31
U	6.45	6.65
V	8.66	8.86



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• ELECTRICAL CHARACTERISTICS (T_C=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} =0; I _D =0.25mA	200		V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D = 0.25mA	2	4	V
R _{DS(ON)}	Drain-Source On-stage Resistance	V _{GS} =10V; I _D =5.4A		0.3	Ω
I _{GSS}	Gate Source Leakage Current	V _{GS} = ± 20V; V _{DS} =0		± 100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =200V; V _{GS} =0		25	uA
V _{SD}	Diode Forward Voltage	I _F = 5.4A; V _{GS} =0		1.3	V