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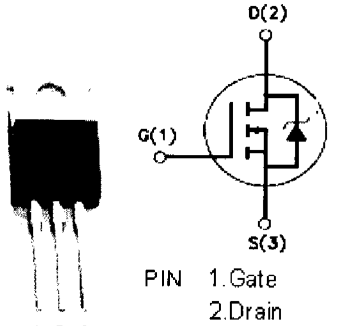
N-Channel MOSFET Transistor

IRF630N



PIN 1.Gate
2.Drain
3.Source

TO-220C package

DESCRIPTION

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

APPLICATIONS

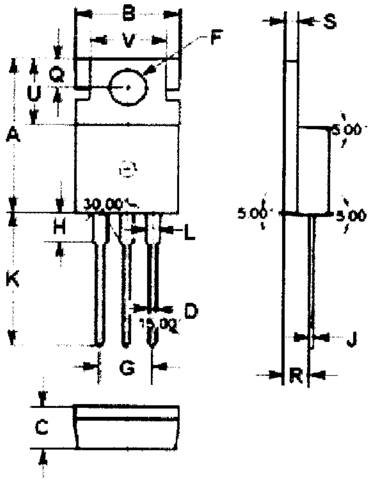
- This device is n-channel, enhancement mode, power MOSFET designed especially for high power, high speed applications, such as switching power supplies,UPS, AC and DC motor controls, relay and solenoid drivers and high energy pulse circuits.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	ARAMETER	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℃	9.3	A
P_D	Total Dissipation@TC=25℃	82	W
T_j	Max. Operating Junction Temperature	175	℃
T_{stg}	Storage Temperature Range	-55~175	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.83	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	62	℃/W



	mm	
DIM	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

Quality Semi-Conductors

• ELECTRICAL CHARACTERISTICS (T_C=25℃)

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