

## N-Channel MOSFET Transistor

**IRF630B**

### DESCRIPTION

- Drain Current  $-I_D = 9A @ T_C = 25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS} = 200V(\text{Min})$
- Static Drain-Source On-Resistance  
:  $R_{DS(on)} = 0.4 \Omega (\text{Max})$
- Fast Switching Speed

### APPLICATIONS

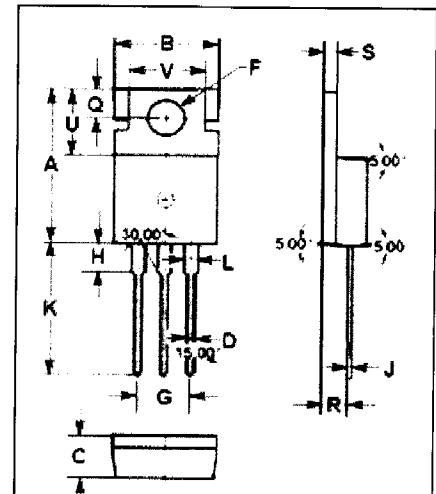
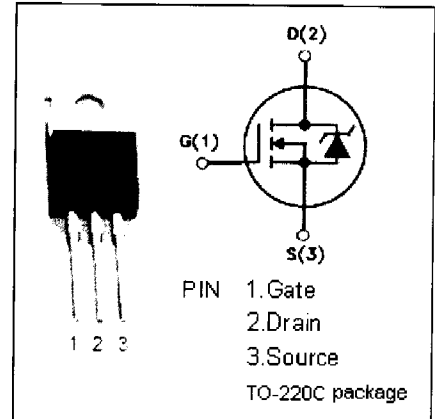
- Desinged for high efficiency switching DC/DC converters, switch mode power supplies, DC-AC converters for unin-terrupted power supply and motor control applications.

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

SYMBOL	ARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage ( $V_{GS}=0$ )	200	V
$V_{GS}$	Gate-Source Voltage	$\pm 30$	V
$I_D$	Drain Current-continuous@ $T_C = 25^\circ C$	9	A
$P_D$	Power Dissipation@ $T_C = 25^\circ C$	72	W
$T_j$	Max. Operating Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ C$

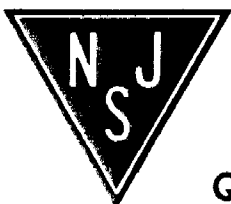
### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.74	$^\circ C/W$
$R_{th j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^\circ C/W$



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<sub>c</sub>=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = 0.25mA	200		V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> = 0.25mA	2	4	V
R <sub>DS(on)</sub>	Drain-Source On-stage Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> = 4.5A		0.4	Ω
I <sub>GSS</sub>	Gate Source Leakage Current	V <sub>GS</sub> = ±30V; V <sub>DS</sub> = 0		±100	nA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> = 200V; V <sub>GS</sub> = 0		10	μA
V <sub>SD</sub>	Diode Forward Voltage	I <sub>F</sub> = 9A; V <sub>GS</sub> = 0		1.5	V