

isc N-Channel Mosfet Transistor

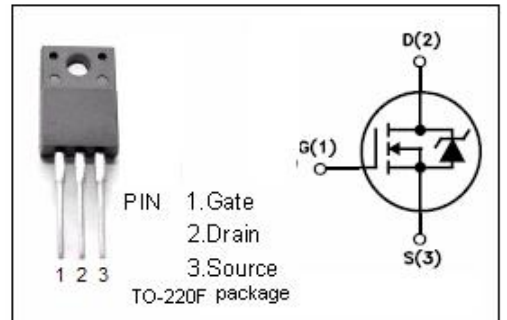
IRF630FI

• FEATURES

- $R_{DS(on)} = 0.4 \Omega$
- 6A and 200V
- single pulse avalanche energy rated
- SOA is Power- Dissipation Limited
- Linear Transfer Characteristics
- High Input Impedance

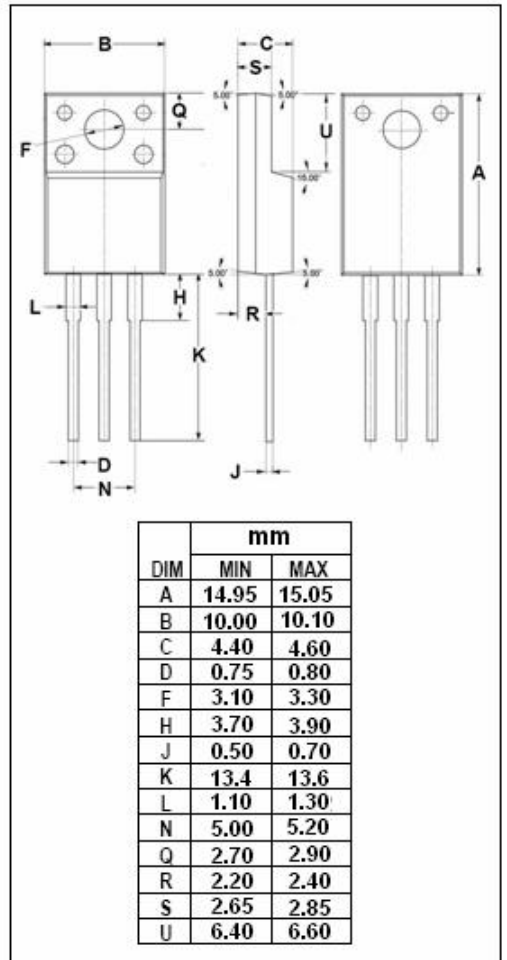
• DESCRIPTION

- Designed for high speed applications, such as switching power supplies , AC and DC motor controls ,relay and solenoid drivers and other pulse.



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	200	V
V_{GS}	Gate-Source Voltage-Continuous	± 20	V
I_D	Drain Current-Continuous	6	A
I_{DM}	Drain Current-Single Plused	24	A
P_D	Total Dissipation @ $T_C=25^\circ\text{C}$	35	W
T_j	Max. Operating Junction Temperature	-55~150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance,Junction to Case	1.67	$^\circ\text{C/W}$
$R_{th j-a}$	Thermal Resistance,Junction to Ambient	80	$^\circ\text{C/W}$

isc N-Channel Mosfet Transistor**IRF630FI****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0; I_D=0.25\text{mA}$	200			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=0.25\text{mA}$	2		4	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}; I_D=5\text{A}$			0.4	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 20\text{V}; V_{DS}=0$			± 500	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=200\text{V}; V_{GS}=0$			250	μA
V_{SD}	Forward On-Voltage	$I_S=6\text{A}; V_{GS}=0$			2.0	V