

isc N-Channel Mosfet Transistor

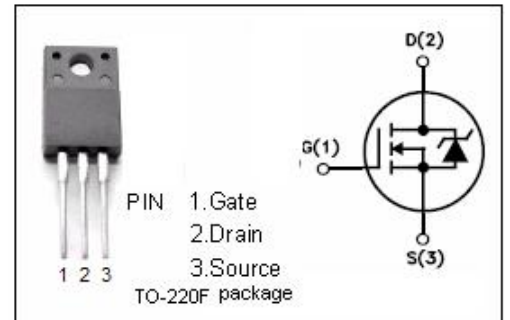
IRF630FI

• 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

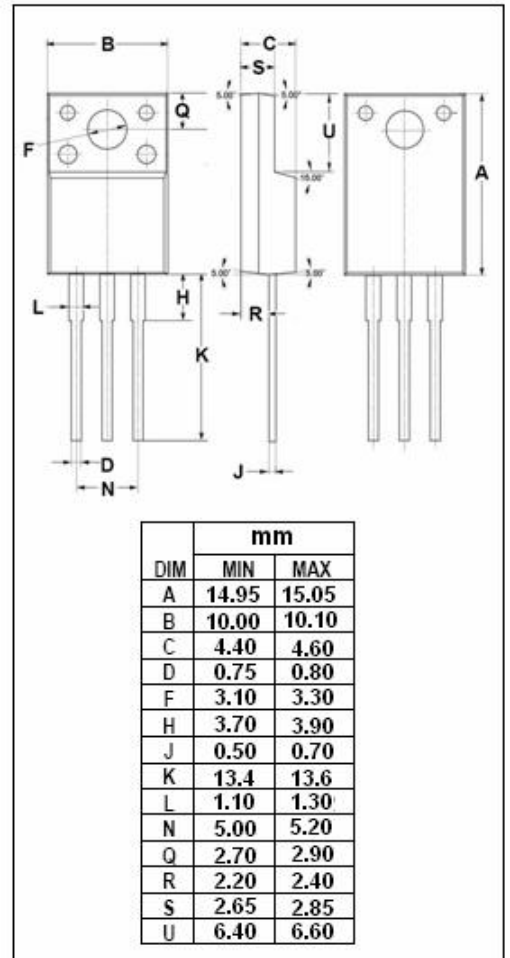
• DESCRIPTION

- 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( $T_a=25^\circ C$ )

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



• THERMAL CHARACTERISTICS

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

**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	$\Omega$
$I_{GSS}$	Gate-Body Leakage Current	$V_{GS}=\pm 20\text{V}; V_{DS}=0$			$\pm 500$	nA
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS}=200\text{V}; V_{GS}=0$			250	$\mu\text{A}$
$V_{SD}$	Forward On-Voltage	$I_S=6\text{A}; V_{GS}=0$			2.0	V