

**isc N-Channel MOSFET Transistor**

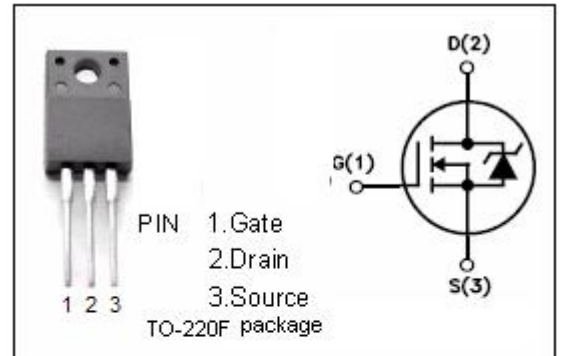
**IRFS630A**

**FEATURES**

- Avalanche Rugged Technology
- Rugged Gate Oxide Technology
- Lower Input Capacitance
- Improved Gate Charge
- Extended Safe Operating Area

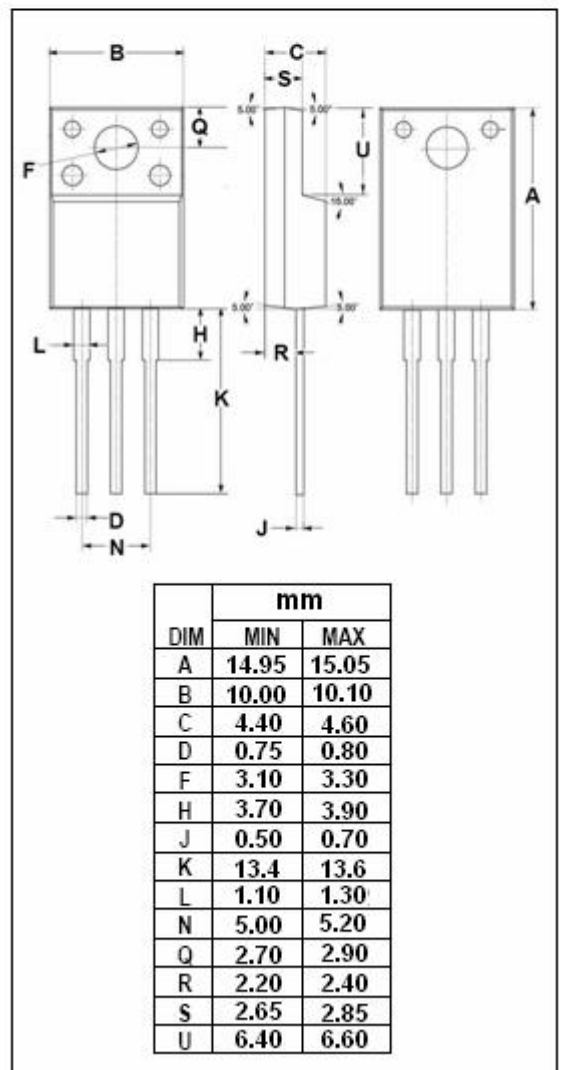
**DESCRIPTION**

- Designed for use in switch mode power supplies and general purpose applications.



**ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	200	V
V <sub>GS</sub>	Gate-Source Voltage-Continuous	±30	V
I <sub>D</sub>	Drain Current-Continuous	6.5	A
I <sub>DM</sub>	Drain Current-Single Pluse	36	A
P <sub>D</sub>	Total Dissipation @T <sub>C</sub> =25°C	38	W
T <sub>J</sub>	Max. Operating Junction Temperature	-55~150	°C
T <sub>stg</sub>	Storage Temperature	-55~150	°C



**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	3.33	°C/W
R <sub>th j-a</sub>	Thermal Resistance, Junction to Ambient	62.5	°C/W

**isc N-Channel MOSFET Transistor****IRFS630A****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	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	$V_{GS}=10\text{V}; I_D=3.25\text{A}$		0.4	$\Omega$
$I_{GSS}$	Gate-Body Leakage Current	$V_{GS}=\pm 30\text{V}; V_{DS}=0$		$\pm 100$	nA
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS}=200\text{V}; V_{GS}=0$ $V_{DS}=160\text{V}; V_{GS}=0; T_j=125^\circ\text{C}$		10 100	$\mu\text{A}$
$V_{SD}$	Forward On-Voltage	$I_S=6.5\text{A}; V_{GS}=0$		1.5	V