

isc N-Channel Mosfet Transistor

IRF530FI

FEATURES

- Low $R_{DS(on)}$
- V_{GS} Rated at $\pm 20V$
- Silicon Gate for Fast Switching Speed
- Rugged
- Low Drive Requirements

DESCRIPTION

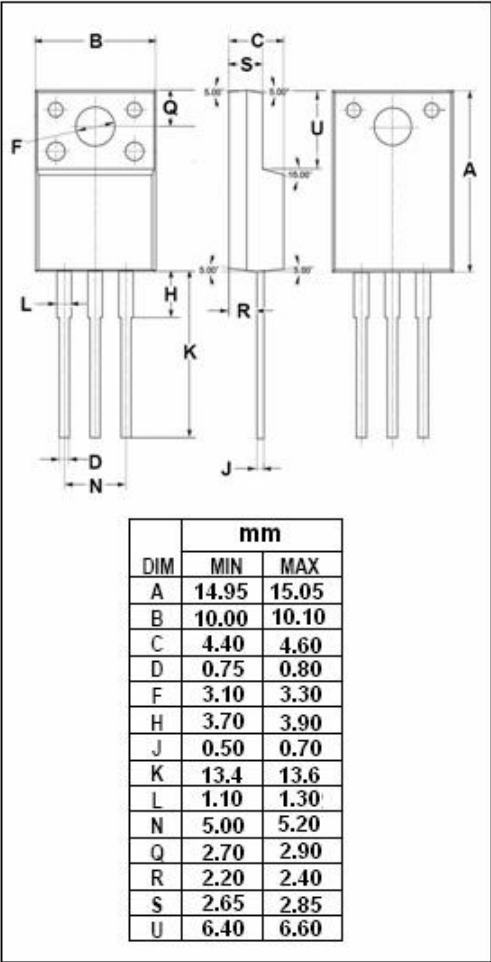
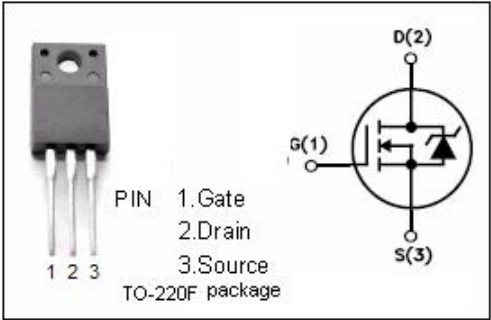
- Designed especially for high voltage,high speed applications, such as off-line switching power supplies , UPS,AC and DC motor controls,relay and solenoid drivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	100	V
V_{GS}	Gate-Source Voltage-Continuous	± 20	V
I_D	Drain Current-Continuous	10	A
I_{DM}	Drain Current-Single Plused	40	A
P_D	Total Dissipation @ $T_C=25^{\circ}C$	40	W
T_j	Max. Operating Junction Temperature	-55~175	$^{\circ}C$
T_{stg}	Storage Temperature	-55~175	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance,Junction to Case	1.9	$^{\circ}C/W$
$R_{th\ j-a}$	Thermal Resistance,Junction to Ambient	80	$^{\circ}C/W$



isc N-Channel Mosfet Transistor**IRF530FI****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D = 0.25mA	100			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D = 0.25mA	2		4	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 8A			0.16	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±20V; V _{DS} = 0			±500	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 100V; V _{GS} =0			250	uA
V _{SD}	Forward On-Voltage	I _S = 10A; V _{GS} =0			2.5	V