

isc N-Channel Mosfet Transistor

IRF710A

FEATURES

- Avalanche Rugged Technology
- Lower Input Capacitance
- Improved Gate Charge
- Extended Safe Operating Area
- Low $R_{DS(ON)}$: 2.815 Ω (Typ.)

DESCRIPTION

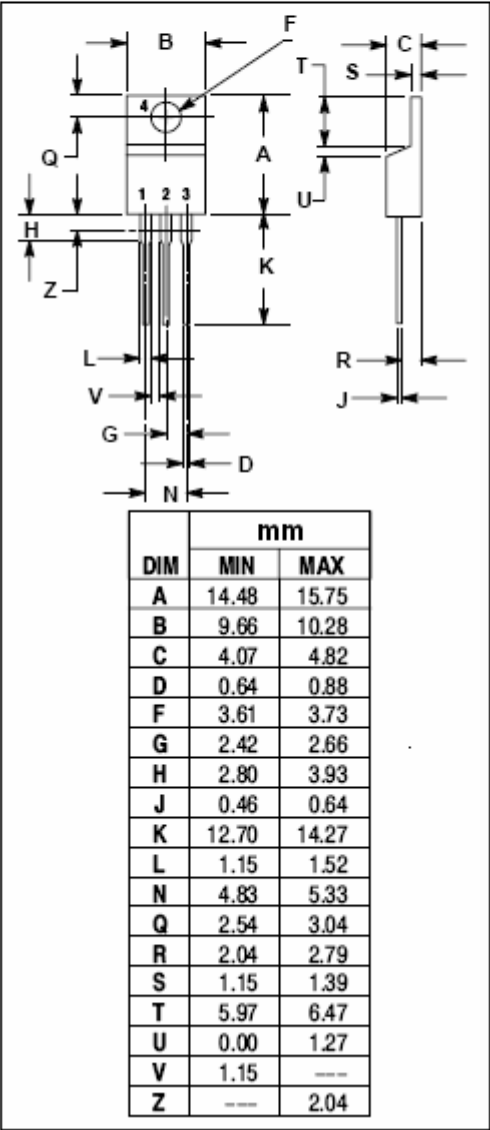
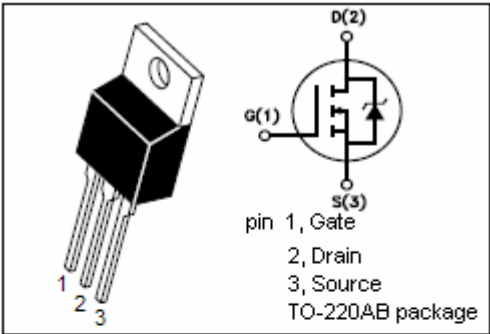
• designed for applications such as switching regulators, switching convertors, motor drivers,relay drivers, and drivers for high power bipolar switching transistors requiring high speed and low gate drive power. These types can be operated directly from integrated circuits.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	400	V
V_{GS}	Gate-Source Voltage-Continuous	± 30	V
I_D	Drain Current-Continuous	2	A
I_{DM}	Drain Current-Single Plused	6	A
P_D	Total Dissipation @ $T_C=25^{\circ}\text{C}$	36	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	3.44	$^{\circ}\text{C/W}$
$R_{\theta JA}$	Junction-to-Ambient	62.5	$^{\circ}\text{C/W}$



isc N-Channel Mosfet Transistor**IRF710A****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0$; $I_D=0.25\text{mA}$	400		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	$V_{GS}=10\text{V}$; $I_D=1\text{A}$		3.6	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 30\text{V}$; $V_{DS}=0$		± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=400\text{V}$; $V_{GS}=0$		10	μA
V_{SD}	Forward On-Voltage	$I_S=2\text{A}$; $V_{GS}=0$		1.5	V
C_{iss}	Input Capacitance	$V_{DS}=25\text{V}$, $V_{GS}=0\text{V}$, $F=1.0\text{MHz}$		280	pF
C_{oss}	Output Capacitance			42	pF
C_{rss}	Reverse Transfer Capacitance			17	pF

• SWITCHING CHARACTERISTICS ($T_C=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$T_d(on)$	Turn-on Delay Time	$V_{DD}=200\text{V}$, $I_D=2\text{A}$ $R_G=24\Omega$		11	30	ns
T_r	Rise Time			15	40	ns
$T_d(off)$	Turn-off Delay Time			38	90	ns
T_f	Fall Time			13	35	ns