

isc N-Channel MOSFET Transistor

IRF742

DESCRIPTION

- Drain Current $-I_D = 8A @ T_C = 25^{\circ}C$
- Drain Source Voltage-
: $V_{DSS} = 350V (Min)$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 0.8 \Omega (Max)$
- Fast Switching Speed

APPLICATIONS

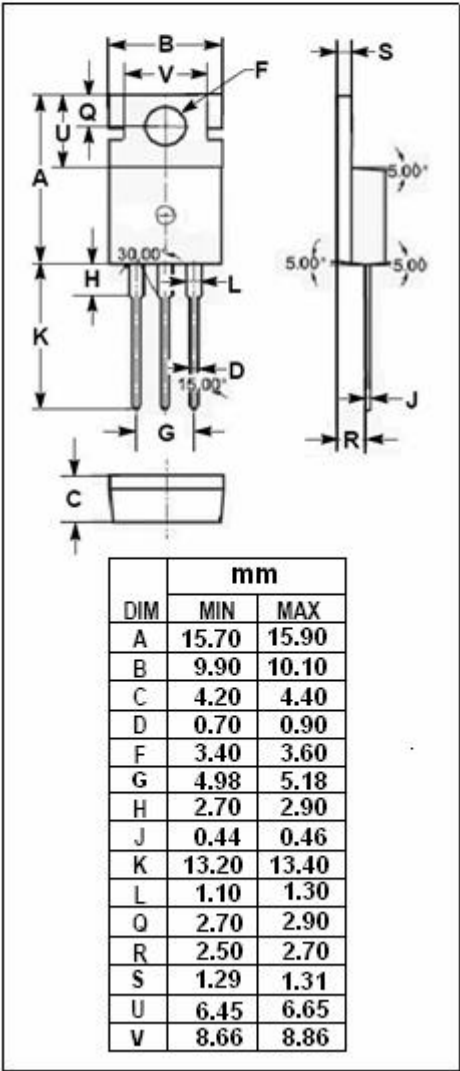
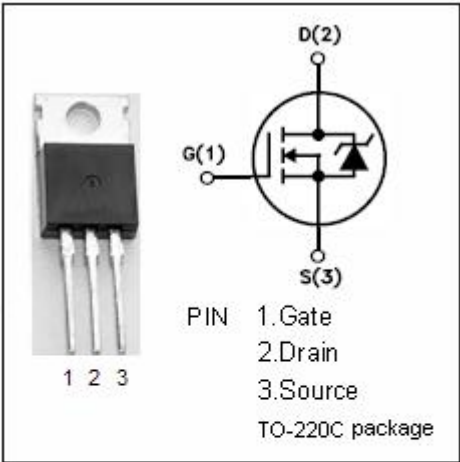
- Designed especially for high voltage,high speed applications, such as off-line switching power supplies , UPS,AC and DC motor controls,relay and solenoid drivers.

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

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS} = 0$)	350	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $T_C = 25^{\circ}C$	8	A
P_{tot}	Total Dissipation@ $T_C = 25^{\circ}C$	125	W
T_j	Max. Operating Junction Temperature	-55~150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance,Junction to Case	1.0	$^{\circ}C/W$
$R_{th j-a}$	Thermal Resistance,Junction to Ambient	80	$^{\circ}C/W$



isc N-Channel Mosfet Transistor**IRF742****• ELECTRICAL CHARACTERISTICS (T_C=25°C)**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} =0; I _D = 0.25mA	350		V
V _{GS(TH)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D = 0.25mA	2	4	V
R _{DS(ON)}	Drain-Source On-stage Resistance	V _{GS} = 10V; I _D = 5.2A		0.8	Ω
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0		±500	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 350V; V _{GS} = 0		250	uA
V _{SD}	Diode Forward Voltage	I _F = 10A; V _{GS} = 0		2.0	V