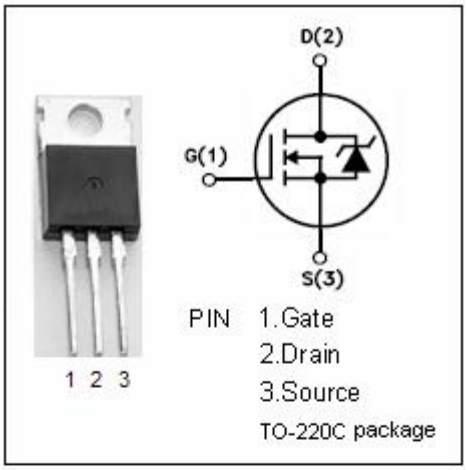
isc N-Channel MOSFET Transistor IRF620A



FEATURES

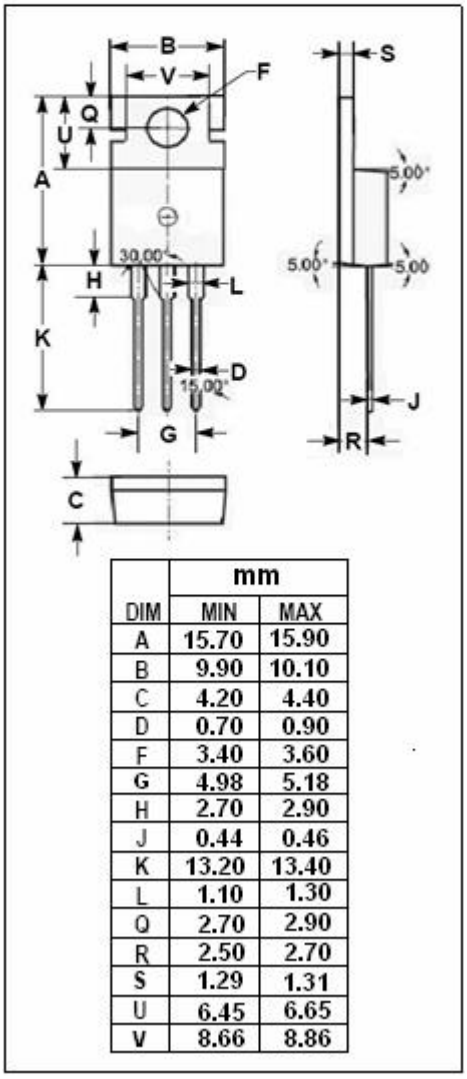
- Low $R_{DS(on)}$ = 0.626Ω(TYP)
- Lower Input Capacitance
- Improved Gate Charge
- Extended Safe Operating Area
- Rugged Gate Oxide Technology

DESCRIPTION

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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	200	V
V_{GS}	Gate-Source Voltage-Continuous	±30	V
I_D	Drain Current-Continuous	5	A
I_{DM}	Drain Current-Single Pluse	18	A
P_D	Total Dissipation @T_C=25℃	47	W
T_J	Max. Operating Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature	-55~150	℃



DIM	mm MIN	MAX
A	15.70	15.90
B	9.90	10.10
C	4.20	4.40
D	0.70	0.90
F	3.40	3.60
G	4.98	5.18
H	2.70	2.90
J	0.44	0.46
K	13.20	13.40
L	1.10	1.30
Q	2.70	2.90
R	2.50	2.70
S	1.29	1.31
U	6.45	6.65
V	8.66	8.86

• **THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	2.65	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance, Junction to Ambient	62.5	℃/W

isc N-Channel MOSFET Transistor

IRF620A

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0; I_D= 0.25mA	200		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=2.5A		0.8	Ω
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±30V;V_{DS}= 0		±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}= 200V; V_{GS}= 0 V_{DS}= 160V; V_{GS}= 0; T_j= 125℃		10 100	μA
V_{SD}	Forward On-Voltage	I_S= 5A; V_{GS}= 0		1.5	V
Ciss	Input Capacitance	V_{DS}=25V,V_{GS}=0V, F=1.0MHz		360	pF
Coss	Output Capacitance			65	pF
Crss	Reverse Transfer Capacitance			30	pF

• SWITCHING CHARACTERISTICS (T_C=25℃)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
Td(on)	Turn-on Delay Time	V_{DD}=100V,I_D=5A R_G=18Ω			30	ns
Tr	Rise Time				30	ns
Td(off)	Turn-off Delay Time				60	ns
Tf	Fall Time				40	ns

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