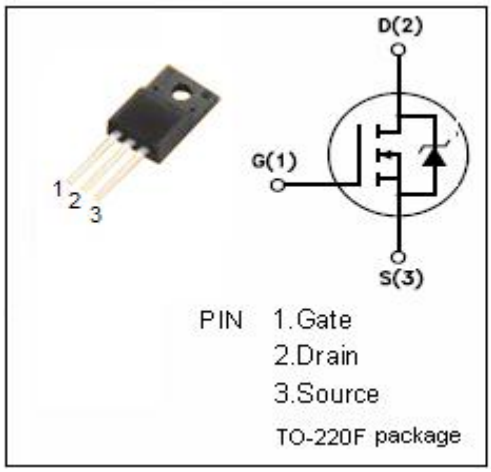
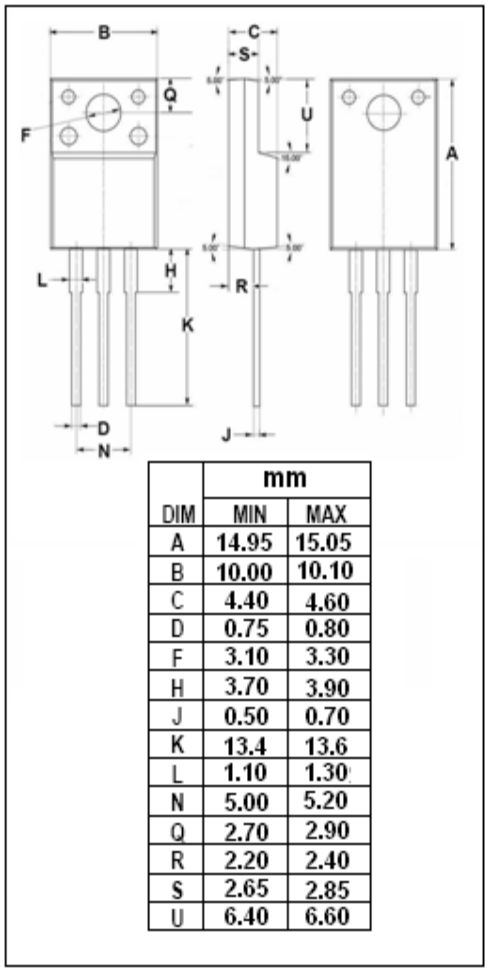
isc N-Channel Mosfet Transistor IRF520FI

- **FEATURES**
- Typical $R_{DS(on)}$ =0.23Ω
- Avalanche Rugged Technology
- High Current Capability
- Low Gate Charge
- 175℃ Operating Temperature



- **DESCRITION**
- High Current ,High Speed Switching
- DC-DC&DC-AC Converters
- Motor Control ,Audio Amplifiers



DIM	mm MIN	MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.80
F	3.10	3.30
H	3.70	3.90
J	0.50	0.70
K	13.4	13.6
L	1.10	1.30
N	5.00	5.20
Q	2.70	2.90
R	2.20	2.40
S	2.65	2.85
U	6.40	6.60

- **ABSOLUTE MAXIMUM RATINGS(T_a=25℃)**

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	100	V
V_{GS}	Gate-Source Voltage-Continuous	±20	V
I_D	Drain Current-Continuous	7	A
I_{DM}	Drain Current-Single Plused	40	A
P_D	Total Dissipation @T_C=25℃	35	W
T_j	Max. Operating Junction Temperature	175	℃
T_{stg}	Storage Temperature	-55~175	℃

- **THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	4.29	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	62.5	℃/W

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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	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= 5A		0.27	Ω
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±20V;V_{DS}= 0		±100	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		1.6	V
Ciss	Input Capacitance	V_{DS}=25V,V_{GS}=0V, F=1.0MHz		450	pF
Coss	Output Capacitance			120	pF
Crss	Reverse Transfer Capacitance			40	pF

• SWITCHING CHARACTERISTICS (T_C=25℃)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
Td(on)	Turn-on Delay Time	V_{DD}=50V,I_D=5A V_{GS}=10V R_{GS}=4.7Ω			15	ns
Tr	Rise Time				75	ns
Td(off)	Turn-off Delay Time				40	ns
Tf	Fall Time				30	ns

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