

isc N-Channel MOSFET Transistor

IRF520

• FEATURES

- Typical $R_{DS(on)} = 0.27\Omega$
- Avalanche Rugged Technology
- High Current Capability
- Low Gate Charge
- 175°C Operating Temperature
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

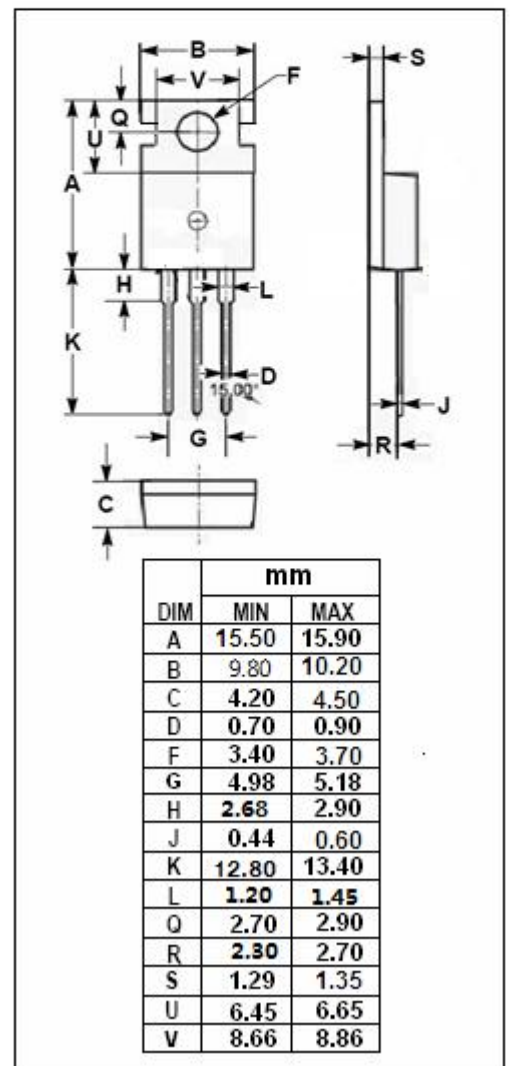
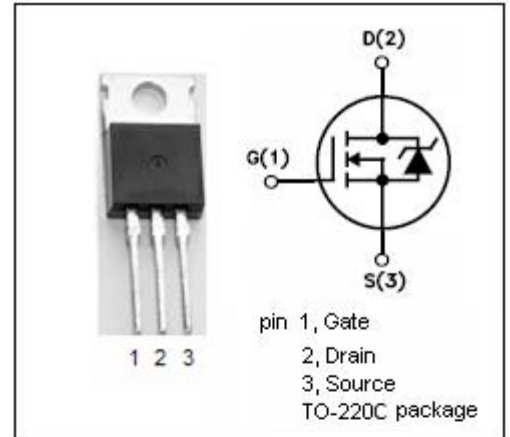
- High Current ,High Speed Switching
- DC-DC&DC-AC Converters
- Motor Control ,Audio Amplifiers

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	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 Pulsed	40	A
P_D	Total Dissipation @ $T_c = 25^\circ\text{C}$	70	W
T_j	Max. Operating Junction Temperature	175	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~175	$^\circ\text{C}$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance,Junction to Case	2.14	$^\circ\text{C/W}$
$R_{th\ j-a}$	Thermal Resistance,Junction to Ambient	62.5	$^\circ\text{C/W}$



isc N-Channel MOSFET Transistor**IRF520****ELECTRICAL CHARACTERISTICS****T_C=25°C 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

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