

**isc P-Channel MOSFET Transistor**

**IRF5210,IIRF5210**

**• FEATURES**

- Static drain-source on-resistance:  
 $R_{DS(on)} \leq 0.06\Omega$
- Enhancement mode:
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**• DESCRIPTION**

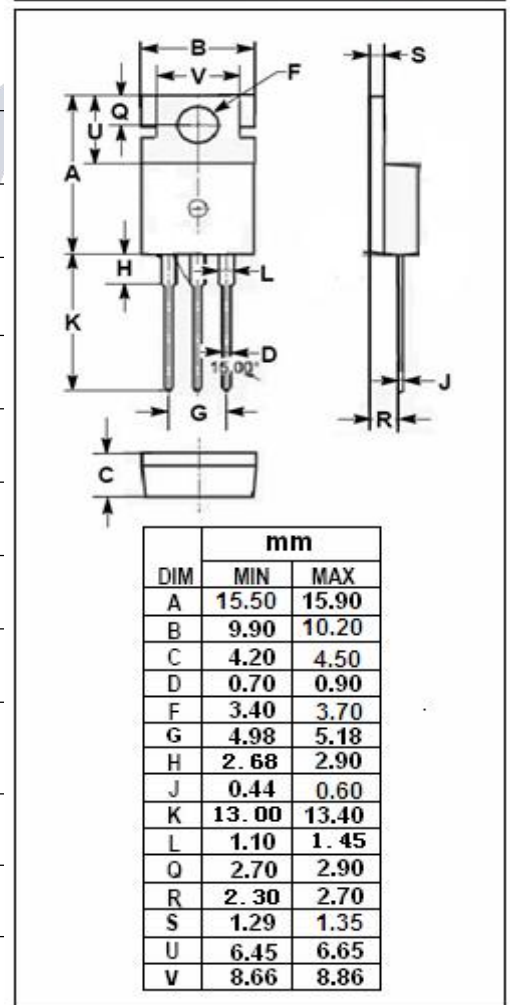
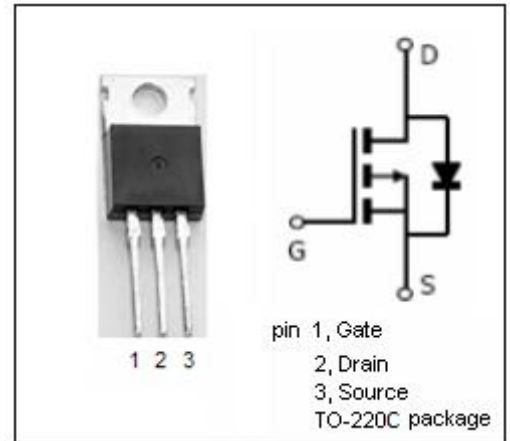
- Combine with the fast switching speed and ruggedized device design, provide the designer with an extremely efficient and reliable device for use in a wide variety of applications.

**• ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	-100	V
V <sub>GS</sub>	Gate-Source Voltage	±20	V
I <sub>D</sub>	Drain Current-Continuous	-40	A
I <sub>DM</sub>	Drain Current-Single Pulsed	-140	A
P <sub>D</sub>	Total Dissipation @T <sub>c</sub> =25°C	200	W
T <sub>j</sub>	Max. Operating Junction Temperature	175	°C
T <sub>stg</sub>	Storage Temperature	-55~175	°C

**• THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th(j-c)</sub>	Channel-to-case thermal resistance	0.75	°C/W
R <sub>th(j-a)</sub>	Channel-to-ambient thermal resistance	62	°C/W



**isc P-Channel MOSFET Transistor****IRF5210,IIRF5210****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$BV_{DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0V; I_D=-250\ \mu\text{A}$	-100			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=-250\ \mu\text{A}$	-2.0		-4.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=-10V; I_D=-24A$			0.06	$\Omega$
$I_{GSS}$	Gate-Source Leakage Current	$V_{GS}=\pm 20V$			$\pm 100$	nA
$I_{DSS}$	Drain-Source Leakage Current	$V_{DS}=-100V; V_{GS}=0V$			-25	$\mu\text{A}$
$V_{SD}$	Diode forward voltage	$I_S=-21A; V_{GS}=0V$			-1.6	V

**NOTICE:**

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