

**isc N-Channel MOSFET Transistor**

**IRF3205**

**FEATURES**

- Drain Current  $-I_D = 110A @ T_C = 25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS} = 55V (Min)$
- Static Drain-Source On-Resistance  
:  $R_{DS(on)} = 0.008 \Omega (Max)$

**Description**

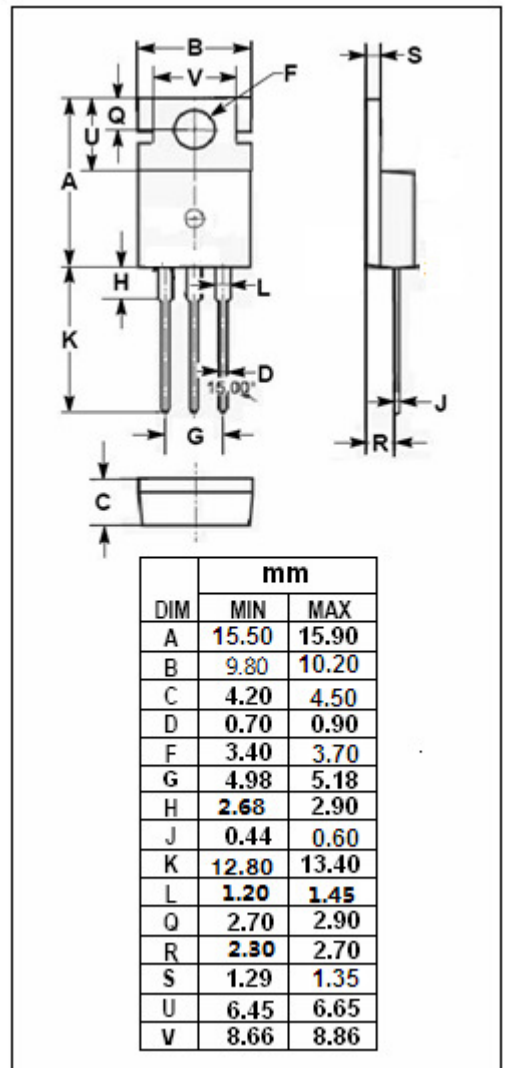
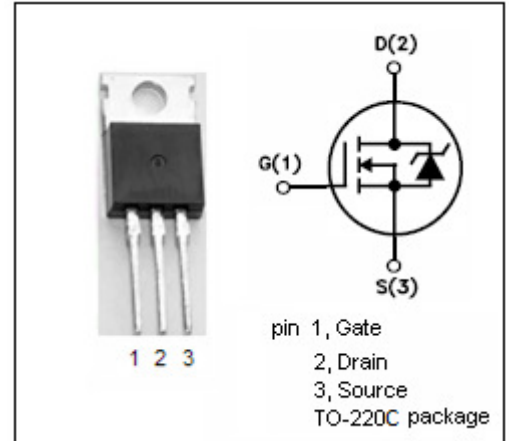
Advanced HEXFET® Power MOSFETs from International Rectifier utilize advanced processing techniques to achieve extremely low on-resistance per silicon area. This benefit, combined with the fast switching speed and ruggedized device design that HEXFET power MOSFETs are well known for, provides the designer with an extremely efficient and reliable device for use in a wide variety of applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	55	V
$V_{GS}$	Gate-Source Voltage-Continuous	$\pm 20$	V
$I_D$	Drain Current-Continuous	110	A
$I_{DM}$	Drain Current-Single Pulse	390	A
$P_D$	Total Dissipation @ $T_C = 25^\circ C$	200	W
$T_J$	Max. Operating Junction Temperature	175	$^\circ C$
$T_{stg}$	Storage Temperature	-55~175	$^\circ C$

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	0.75	$^\circ C/W$
$R_{th j-a}$	Thermal Resistance, Junction to Ambient	62	$^\circ C/W$



**isc N-Channel MOSFET Transistor****IRF3205****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0; I_D=0.25\text{mA}$	55			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=0.25\text{mA}$	2		4	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}; I_D=62\text{A}$			0.008	$\Omega$
$I_{GSS}$	Gate-Body Leakage Current	$V_{GS}=\pm 20\text{V}; V_{DS}=0$			$\pm 100$	nA
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS}=55\text{V}; V_{GS}=0$			25	$\mu\text{A}$
$V_{SD}$	Forward On-Voltage	$I_S=62\text{A}; V_{GS}=0$			1.3	V
Gfs	Forward Transconductance	$V_{DS}=25\text{V}; I_D=62\text{A}$	44			S