

Description

This 55V 110A N-Channel MOSFET in a TO-220 Plastic Package.

Applications

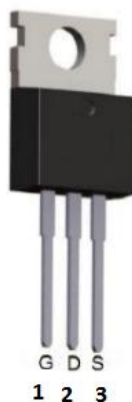
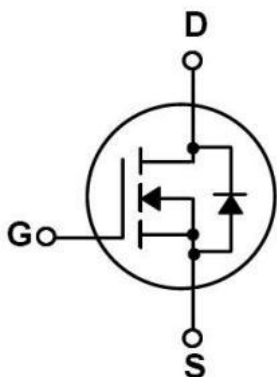
These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies

Features

- Low On-Resistance
- Fast switching

V_{DSS}	$R_{DS(on)}$ (Max)	I_D
55V	8m Ω	110A

Equivalent Circuit & Pinning



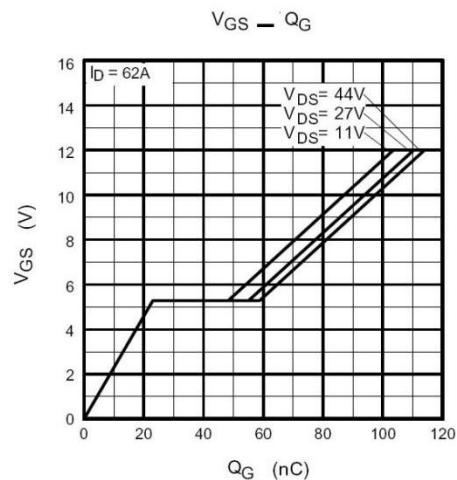
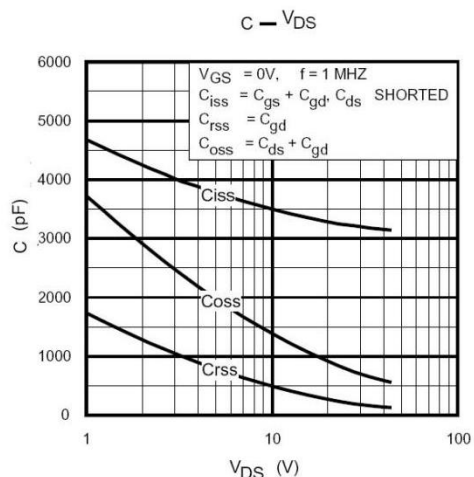
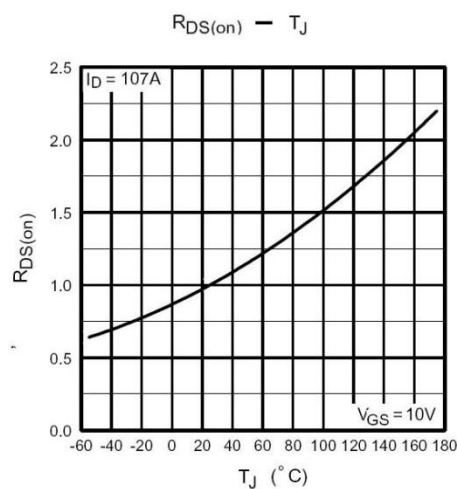
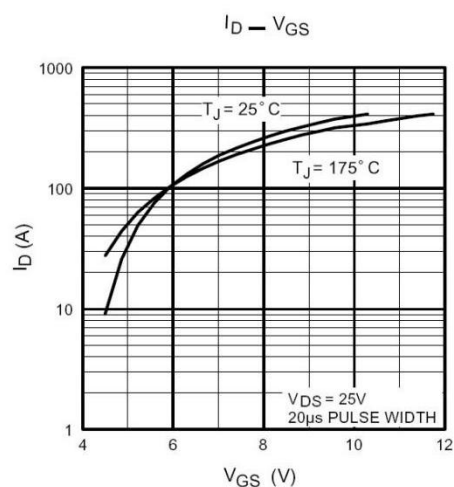
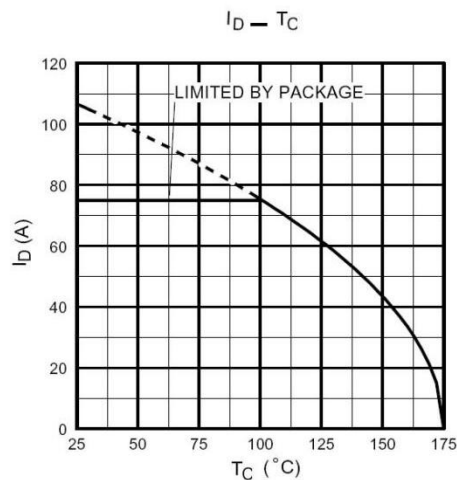
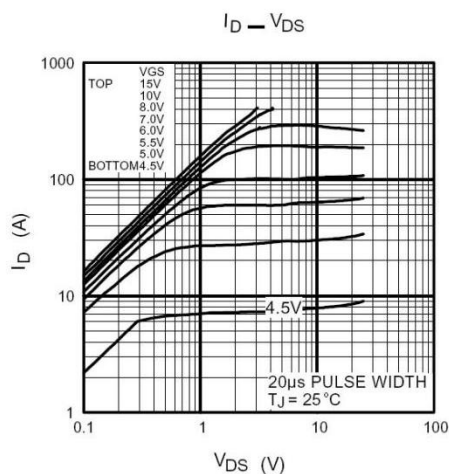
Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	55	V
Drain Current	$I_D(T_c=25^\circ\text{C})$	110	A
	$I_D(T_c=100^\circ\text{C})$	80	A
Pulsed Drain Current	I_{DM}	390	A
Gate-Source Voltage	V_{GS}	± 20	V
Avalanche Current	I_{AR}	62.3	A
Single Pulsed Avalanche Energy	E_{AS}	1.3	J
Total Power Dissipation	$P_D(T_c=25^\circ\text{C})$	200	W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	°C

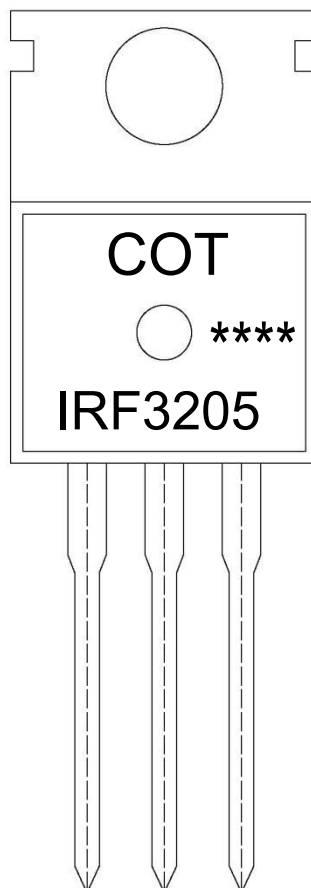
Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Zero Gate Voltage Drain Current	BV_{DSS}	$V_{GS}=0V$ $I_D=250\mu A$	55			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=55V$ $V_{GS}=0V$			1	μA
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 0.1	μA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	2		4	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=90A$			8	m Ω
Forward Transconductance	g_{FS}	$V_{DS}=10V$ $I_D=30A$		38		S
Forward On Voltage	V_{SD}	$V_{GS}=0V$ $I_S=90A$			1.3	V
Input Capacitance	C_{iss}	$V_{DS}=25V$ $V_{GS}=0V$ $f=1MHz$		3140		pF
Output Capacitance	C_{oss}			806		
Reverse Transfer Capacitance	C_{rss}			211		
Turn-On Delay Time	$t_{d(on)}$	$V_{DD}=28V$ $I_D=62A$ $R_G=4.5\Omega$		14		ns
Turn-On Rise Time	t_r			101		
Turn-Off Delay Time	$t_{d(off)}$			50		
Turn-Off Fall Time	t_f			65		

Electrical Characteristic Curve



Marking Instructions



Note:

COT: Company Logo.

IRF3205: Product Type.

****: Lot No. Code, code change with Lot No.

Packaging SPEC.

BULK AND TUBE INFOMATIONS

Package Type	Units					Dimension (unit: mm ³)		
	Units/Bag	Bags/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Bag	Inner Box	Outer Box
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

Package Type	Units					Dimension (unit: mm ³)		
	Units/Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Tube	Inner Box	Outer Box
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

Package Outline Dimensions

T0-220

单位: mm

