

EVVOSEMI[®]

THINK CHANGE DO



ESD



TVS



MOS



LDO



Diode



Sensor



DC-DC

Product Specification

▶ Domestic	Part Number	IRF7205
▶ Overseas	Part Number	IRF7205
▶ Equivalent	Part Number	IRF7205

EV is the abbreviation of name EVVO

V _{DSS} (V)	R _{DS (ON)}	I _{D(A)}
-30	36mΩ(Typ)@V _{GS} =-10V	-5.3
	48mΩ(Typ)@V _{GS} =-4.5V	

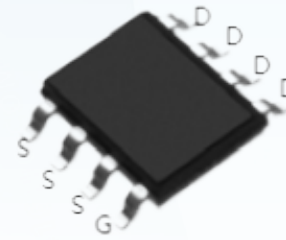
FEATURE:

- The IRF7205 is the high cell density trenched P-ch MOSFETS, which provides excellent R_{DS(ON)} and efficiency for most of the small power switching and load switch applications.

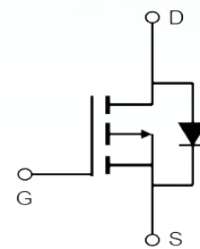
APPLICATIONS:

- Load Switch

Pin Description



SOP-8



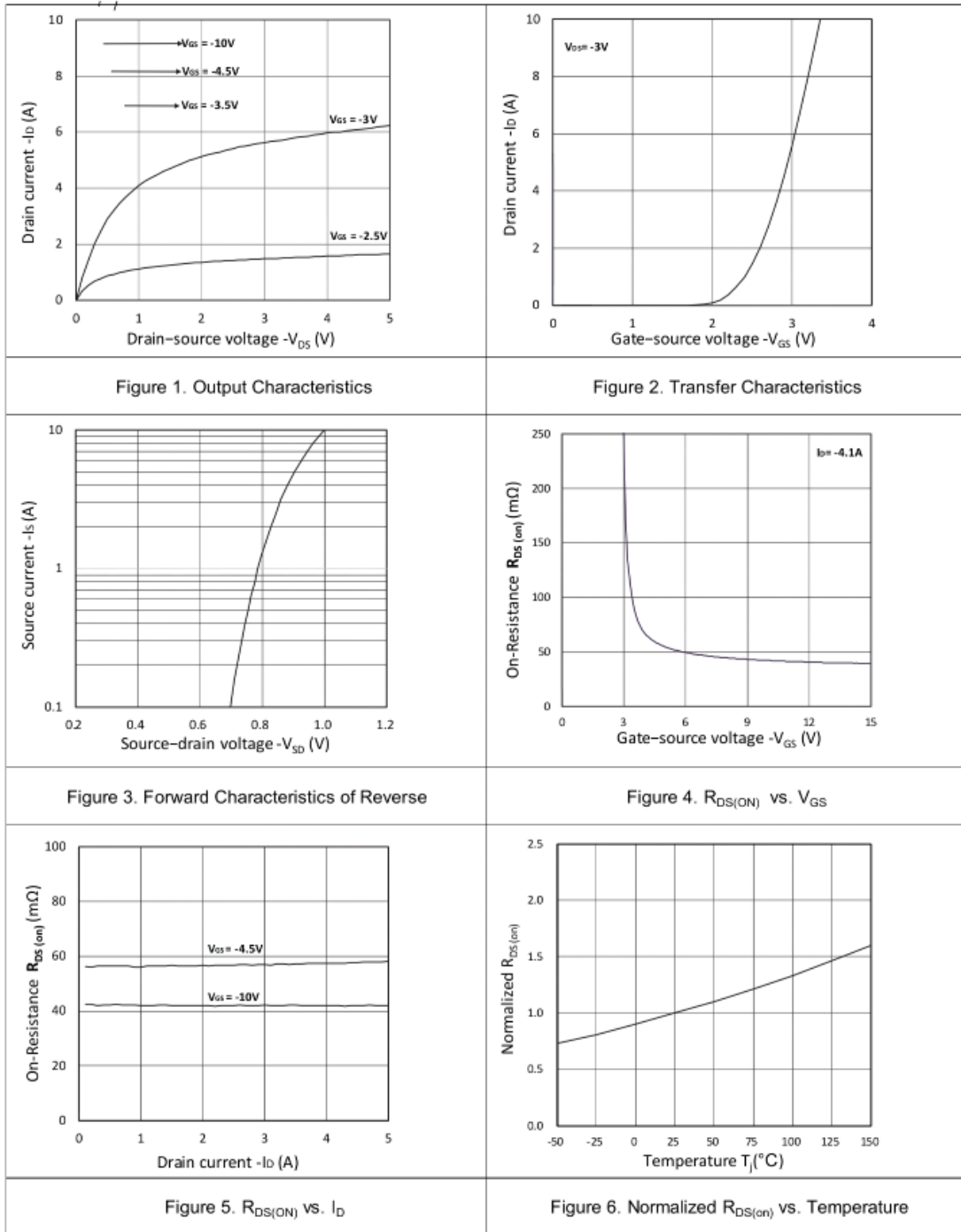
Absolute Maximum Ratings

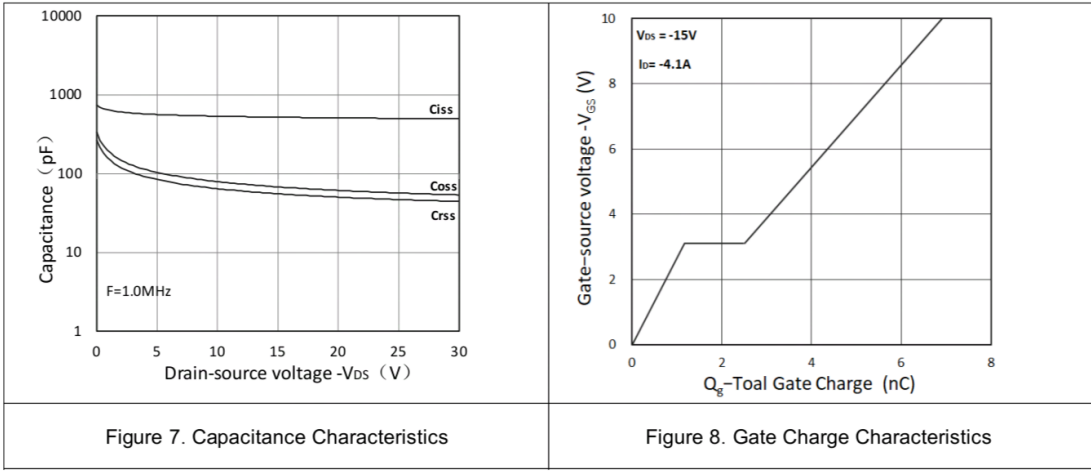
Symbol	Parameter	Rating	Units
V _{bss}	Drain-Source Voltage	-30	V
V _{GSS}	Gate-Source Voltage	±20	V
I _D	Continuous Drain Current(V _{GS} = -4.5V)	T _A =25°C	-5.3
		T _A =70°C	-4.7
T _J	Maximum Junction Temperature	150	°C
T _{STG}	Storage Temperature Range	-55 to	°C
I _{DM}	Pulsed Drain Current	-20	A
P _D	Maximum Power Dissipation	T _A =25°C	1.5
		T _A =70°C	---
E _{AS}	Avalanche Energy, Single Pulsed	---	mJ
R _{θJC}	Thermal Resistance-Junction to Case	---	°C/W
R _{θJA}	Thermal Resistance-Junction to Ambient	55	°C/W

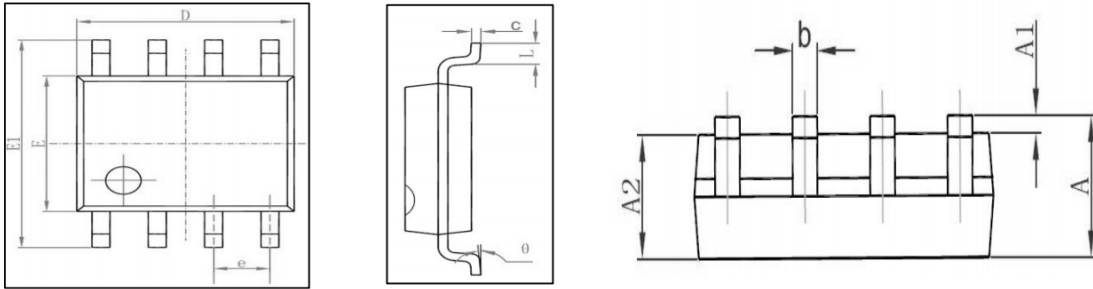
Electrical Characteristics (T_A=25°C Unless Otherwise Noted)

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
Static Characteristics						
BVDSS	Drain-Source Breakdown Voltage	VGS=0V, ID=250uA	-30	---	---	V
VGS(th)	Gate threshold voltage	VDS=VGS, ID=250uA	-1.0	-1.5	-2.5	V
RDS(on)	Drain-Source On-state Resistance	VGS=-10V, ID=-4.1A	---	36	55	mΩ
		VGS=-4.5V, ID=-3A	---	48	85	mΩ
IGSS	Gate-source leakage current	VGS=±20V, VDS=0V	---	---	±100	nA
IDSS	Zero gate voltage drain current	VDS=-30V, VGS=0V, T _J =25°C	---	---	-1	μA
		T _J =55°C	---	---	---	
Dynamic Characteristic						
Ciss	Input Capacitance	VGS=0V, VDS=-15V, Frequency=1.0MHz	---	530	---	pF
Coss	Output Capacitance		---	70	---	
Crss	Reverse Transfer Capacitance		---	56	---	
QG	Gate Total Charge	VDS=-15V, VGS=-10V, IDS=-4.1A	---	6.8	---	nC
Qgs	Gate-Source charge		---	1.0	---	
Qgd	Gate-Drain charge		---	1.4	---	
td(on)	Turn-on delay time	VDD=-15V, VGS=-10V, RG=2.5Ω, ID=-3A	---	14	---	ns
tr	Turn-on Rise Time		---	61	---	
td(off)	Turn-off Delay Time		---	19	---	
tf	Turn-off Fall Time		---	10	---	
RG	Gate Resistance	VGS=0V, VDS=0V, F=1MHz	---	---	---	Ω
Diode Characteristics						
VSD	Diode Forward Voltage	VGS=0V, I _s =-4.1A	---	---	-1.2	V
I _s	Maximum Continuous Drain to Source Diode Forward Current		---	----	-5.3	A
I _{SM}	Maximum Pulsed Drain to Source Diode Forward Current		----	----	---	A
trr	Reverse Recovery Time	I _{SD} =4.1A, dI _{SD} /dt=-100A/μs	---	---	---	ns
Qrr	Reverse Recovery Charge		---	---	---	nC

TYPICAL ELECTRICAL AND THERMAL CHARACTERISTICS







Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.350	1.750	0.053	0.069
A1	0.100	0.250	0.004	0.010
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.006	0.010
D	4.700	5.100	0.185	0.200
E	3.800	4.000	0.150	0.157
E1	5.800	6.200	0.228	0.244
e	1.270 (BSC)		0.050 (BSC)	
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°

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