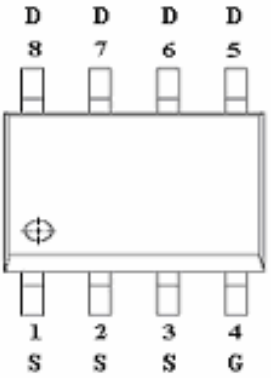
SPP9235
P-Channel Enhancement Mode MOSFET

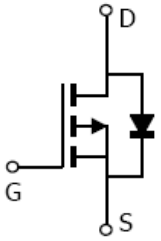
DESCRIPTION
The SPP9235 is the P-Channel logic enhancement mode power field effect transistors are produced using high cell density , DMOS trench technology.
This high density process is especially tailored to minimize on-state resistance.
These devices are particularly suited for low voltage application , notebook computer power management and other battery powered circuits where high-side switching .

APPLICATIONS
- Power Management in Note book
- Portable Equipment
- Battery Powered System
- DC/DC Converter
- Load Switch
- DSC
- LCD Display inverter

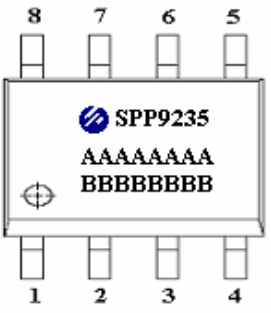
FEATURES
- -25V/-7.5A,$R_{DS(ON)}$=45mΩ@V_{GS}=-10V
- -25V/-6.0A,$R_{DS(ON)}$=55mΩ@V_{GS}=-6V
- -25V/-5.4A,$R_{DS(ON)}$=65mΩ@VGS=-4.5V
- Super high density cell design for extremely low $R_{DS\ (ON)}$
- Exceptional on-resistance and maximum DC current capability
- SOP–8 package design

PIN CONFIGURATION(SOP–8)





PART MARKING



A : Lot Code
B : Date Code

SPP9235
P-Channel Enhancement Mode MOSFET

PIN DESCRIPTION

Pin	Symbol	Description
1	S	Source
2	S	Source
3	S	Source
4	G	Gate
5	D	Drain
6	D	Drain
7	D	Drain
8	D	Drain

ORDERING INFORMATION

Part Number	Package	Part Marking
SPP9235S8RG	SOP-8	SPP9235
SPP9235S8TG	SOP-8	SPP9235

※ SPP9235S8RG : 13" Tape Reel ; Pb – Free
※ SPP9235S8TG : Tube ; Pb – Free

ABSOULTE MAXIMUM RATINGS
(T_A=25℃ Unless otherwise noted)

Parameter		Symbol	Typical	Unit
Drain-Source Voltage		V_{DSS}	-25	V
Gate –Source Voltage		V_{GSS}	±20	V
Continuous Drain Current(T_J=150℃)	T_A=25℃	I_D	-8.0	A
	T_A=70℃		-6.0	
Pulsed Drain Current		I_{DM}	-30	A
Continuous Source Current(Diode Conduction)		I_S	-2.3	A
Power Dissipation	T_A=25℃	P_D	2.8	W
	T_A=70℃		1.8	
Operating Junction Temperature		T_J	-55/150	℃
Storage Temperature Range		T_{STG}	-55/150	℃
Thermal Resistance-Junction to Ambient		$R_{\theta JA}$	70	℃/W

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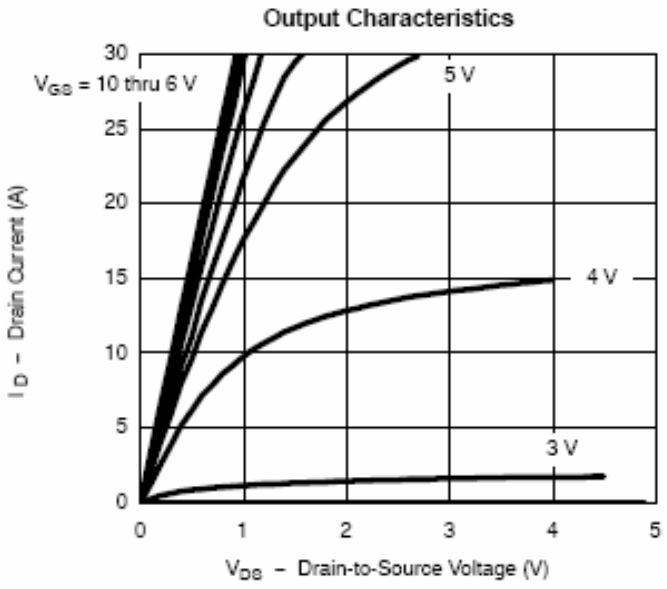
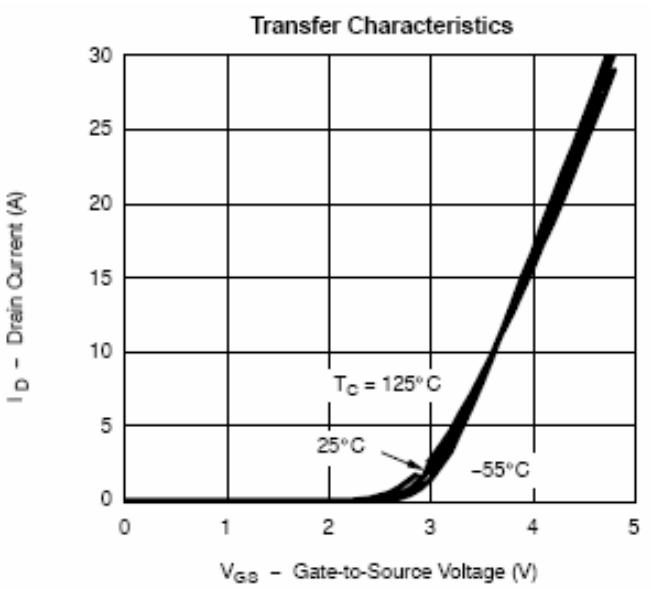
P-Channel Enhancement Mode MOSFET

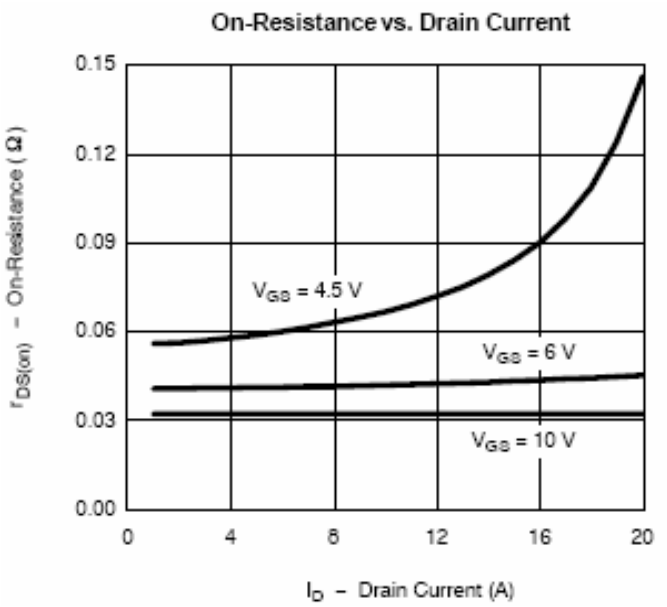
ELECTRICAL CHARACTERISTICS
(T_A=25℃ Unless otherwise noted)

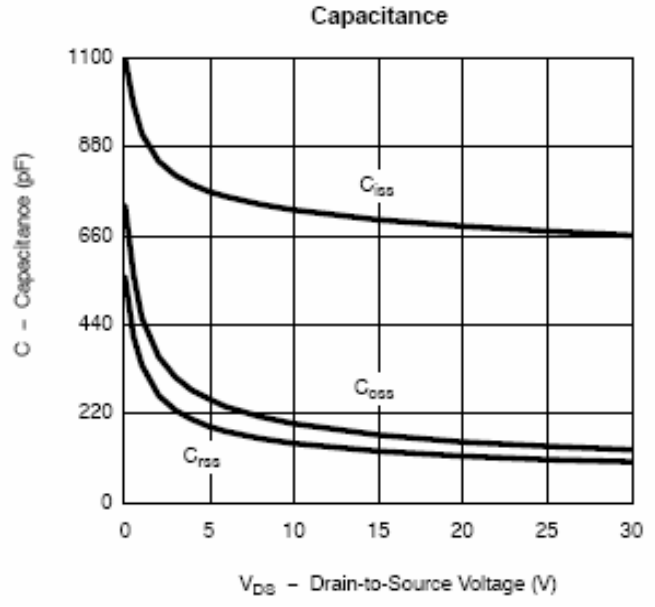
Parameter	Symbol	Conditions	Min.	Typ	Max.	Unit
Static						
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	V_{GS}=0V,I_D=-250uA	-30			V
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS},I_D=-250uA	-1.0		-3.0	
Gate Leakage Current	I_{GSS}	V_{DS}=0V,V_{GS}=±20V			±100	nA
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-18V,V_{GS}=0V			-1	uA
		V_{DS}=-18V,V_{GS}=0V T_J=85℃			-5	
On-State Drain Current	$I_{D(on)}$	V_{DS}= -5V,V_{GS} =-4.5V	-10			A
Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=-10V,I_D=-7.5A		0.035	0.045	Ω
		V_{GS}=-6.0V,I_D=-6.0A		0.045	0.055	
		V_{GS}=-4.5V,I_D=-5.4A		0.055	0.065	
Forward Transconductance	gfs	V_{DS}=-15V,I_D=-5.7A		13		S
Diode Forward Voltage	V_{SD}	I_S=-2.3A,V_{GS} =0V		-0.8	-1.2	V
Dynamic						
Total Gate Charge	Q_g	V_{DS}=-15V,V_{GS}=-10V I_D= -3.5A		16	24	nC
Gate-Source Charge	Q_{gs}			2.3		
Gate-Drain Charge	Q_{gd}			4.5		
Input Capacitance	C_{iss}	V_{DS}=-15V,V_{GS}=0V f=1MHz		680		pF
Output Capacitance	C_{oss}			120		
Reverse Transfer Capacitance	C_{rss}			75		
Turn-On Time	$t_{d(on)}$	V_{DD}=-15V,R_L=15Ω I_D≡-1.0A,V_{GEN}=-10V R_G=6Ω		14	25	nS
	t_r			15	26	
Turn-Off Time	$t_{d(off)}$			42	70	
	t_f			30	50	

TYPICAL CHARACTERISTICS

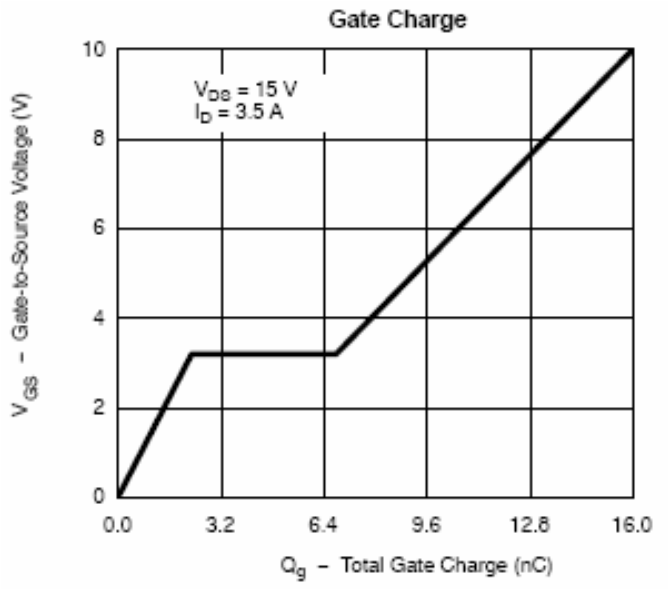


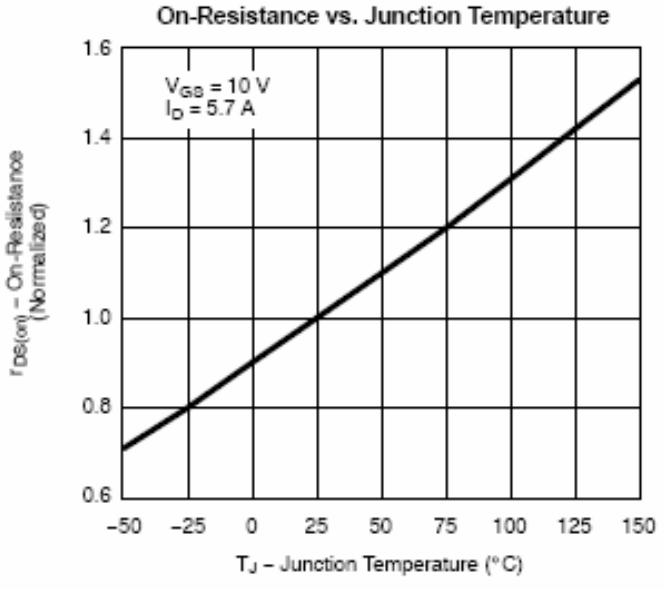


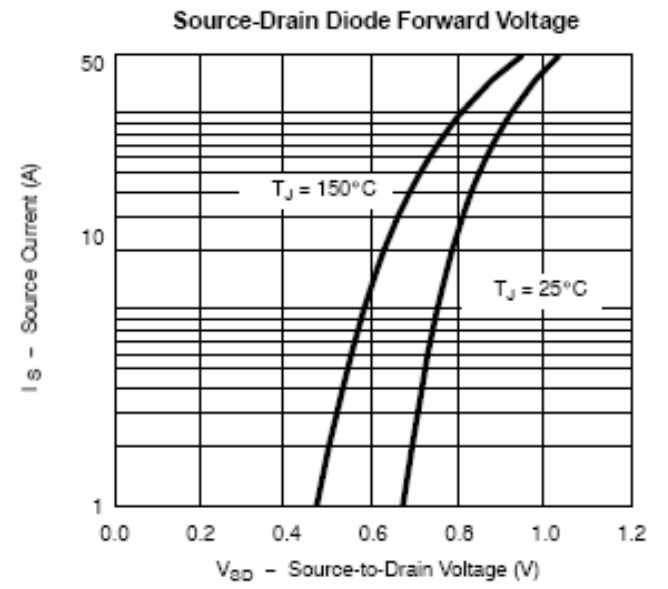


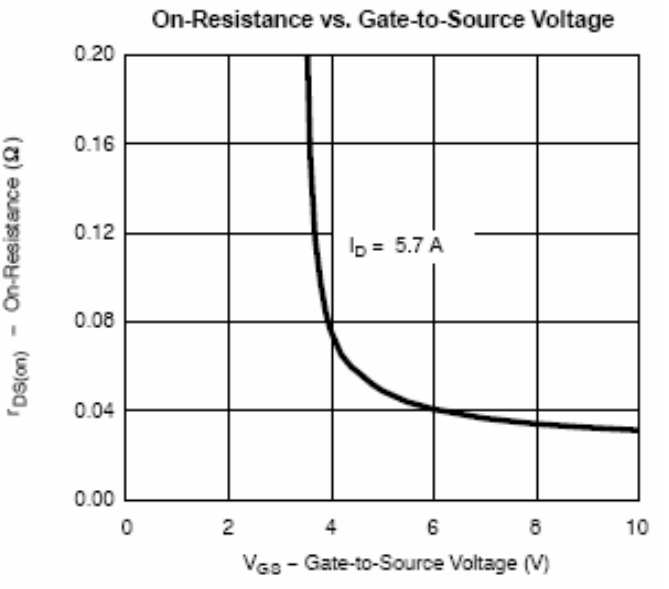


TYPICAL CHARACTERISTICS









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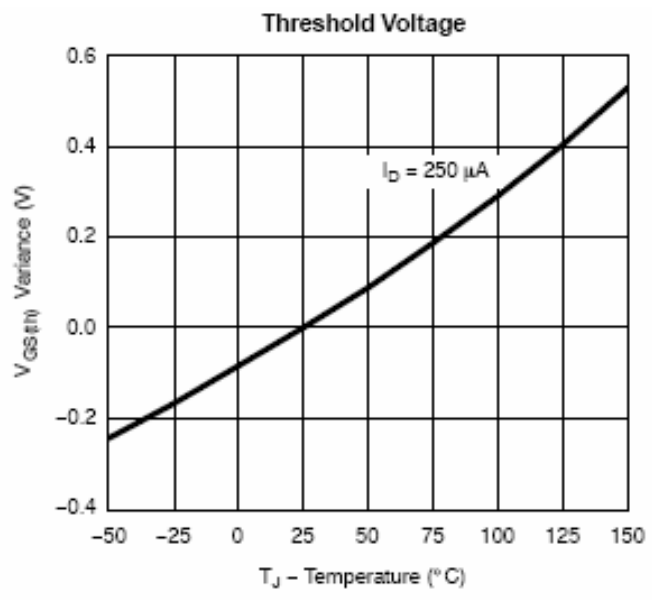

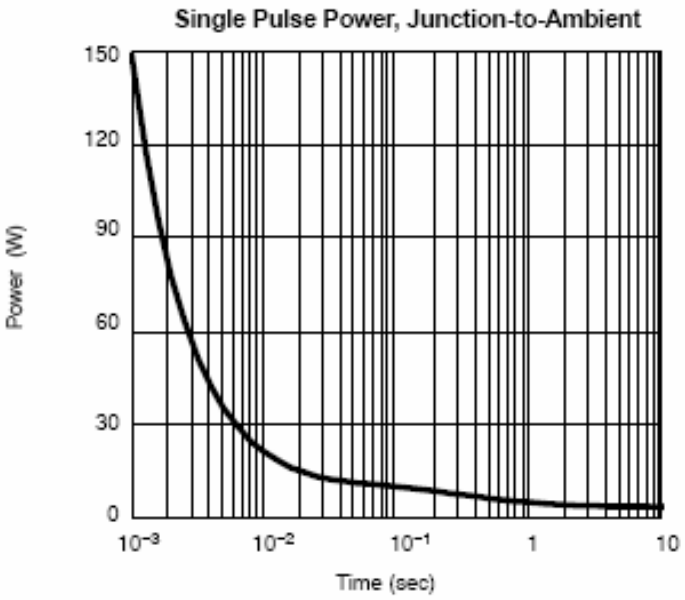

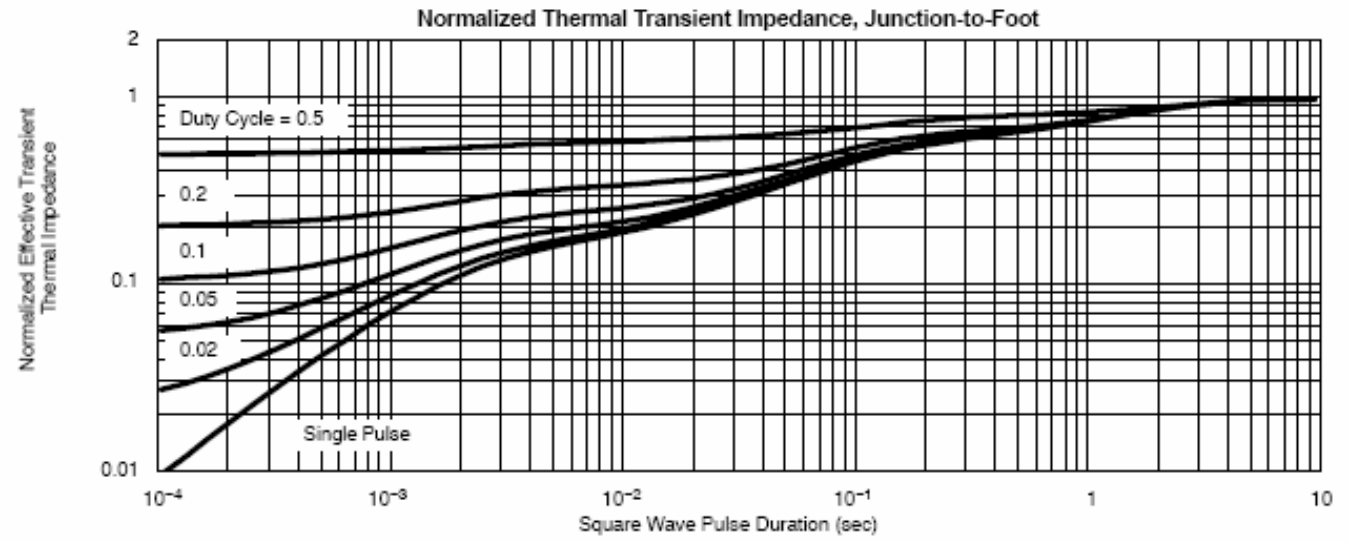

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