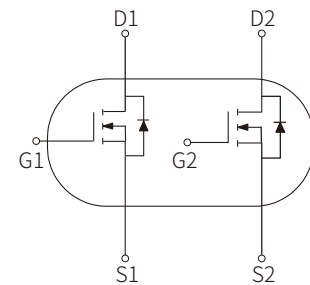
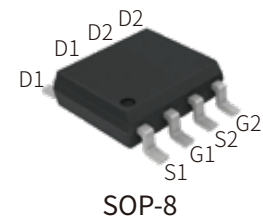


FEATURES

- Advanced trench process technology
- High Density Cell Design For Ultra Low On-Resistance
- High Power and Current handing capability
- Ideal for Li ion battery pack applications

APPLICATION

- Power switching application
- Hard switched and high frequency circuits
- Uninterruptible Power Supply (UPS)



Schematic Symbol

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Drain-Source Breakdown Voltage	V_{DSS}	20	V
Gate-Source Voltage	V_{GSS}	± 12	V
Pulse Drain Current Tested (Silicon Limit) $T_A=25^{\circ}\text{C}$ (Notes1)	I_{DM}	20	A
Continuous Drain current $T_A=25^{\circ}\text{C}$	I_D	6	A
Maximum Power Dissipation $T_A=25^{\circ}\text{C}$	P_D	2	W
Diode Continuous Forward Current $T_A=25^{\circ}\text{C}$	I_S	1.7	A
Thermal Resistance- Junction to Ambient (Notes2)	$R_{\theta JA}$	62.5	$^{\circ}\text{C/W}$
Maximum Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to 150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS (Ta=25°C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Static Electrical Characteristics						
Drain-source Breakdown Voltage	V _{(BR)DSS}	V _{GS} =0V,I _{DS} =250μA	20			V
Gate Leakage Current	I _{GSS}	V _{GS} =±12V,V _{DS} =0V			±10	μA
Drain Leakage Current	I _{DSS}	V _{DS} =20V,V _{GS} =0V			1	μA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} ,I _D =250μA	0.5		0.9	V
Drain-Source On-State Resistance ^(Note3)	R _{DS(on)}	V _{GS} =4.5V,I _{DS} =0.5A		25	30	mΩ
		V _{GS} =2.5V,I _{DS} =0.5A		32	40	mΩ
Dynamic Electrical Characteristics						
Total Gate Charge	Q _g	V _{GS} =4.5V,V _{DS} =10V,I _D =6A		5		nC
Gate-Source Charge	Q _{gs}			1		nC
Gate-Drain Charge	Q _{gd}			1.5		nC
Input Capacitance	C _{iss}	V _{GS} =0V,V _{DS} =8V,f=1MHz		565		pF
Output Capacitance	C _{oss}			105		pF
Reverse Transfer Capacitance	C _{rss}			75		pF
Switching Characteristics ^(Note4)						
Turn-on Delay Time	t _{d(ON)}	V _{DS} =10V,V _{GS} =4.5V,I _D =1A,R _G =6Ω		8		ns
Turn-on Rise Time	t _r			10		ns
Turn-off Delay Time	t _{d(OFF)}			22		ns
Turn-off Fall Time	t _f			6		ns
Source- Drain Diode Characteristics						
Forward on voltage	V _{SD}	I _{SD} =1A,V _{GS} =0V		0.7	1.3	V

Note:

1. Repetitive Rating: Pulse width limited by maximum junction temperature.
2. Surface Mounted on FR4 Board, $t \leq 10$ sec.
3. Pulse Test: pulse width $\leq 300 \mu s$, duty cycle $\leq 2\%$.
4. Guranteed by design, not subject to production testing

PARAMETER CHARACTERISTIC CURVE

Figure1:

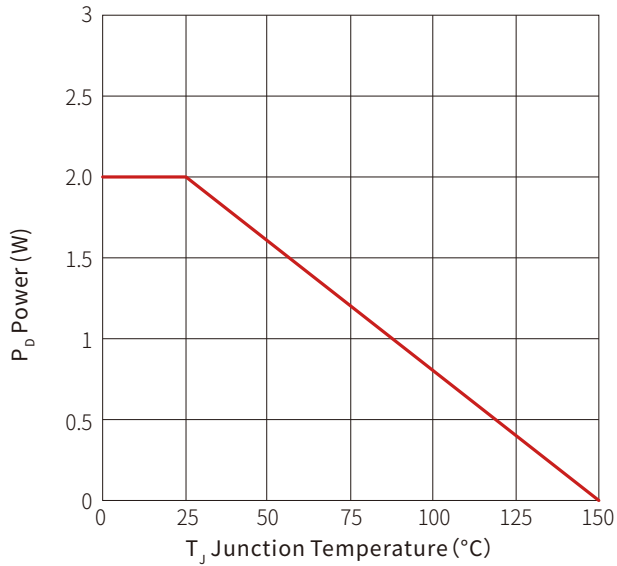


Figure2:

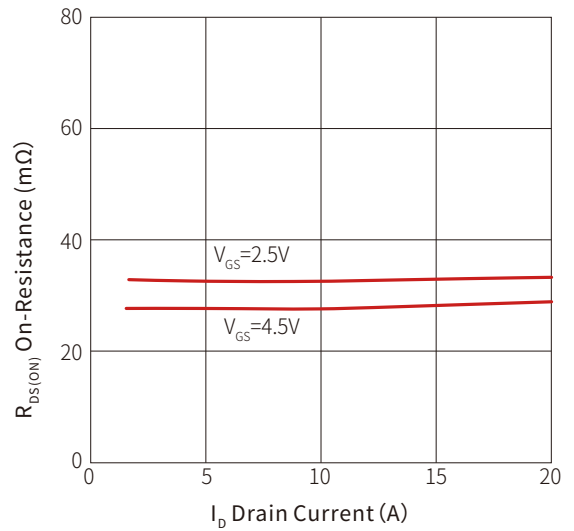


Figure3:

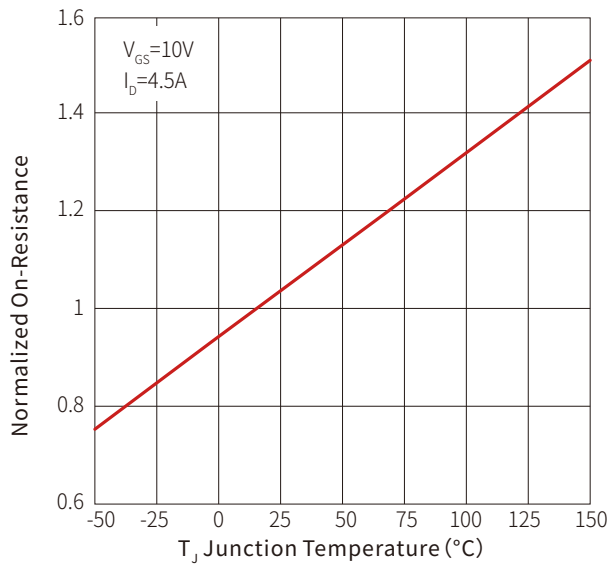


Figure4:

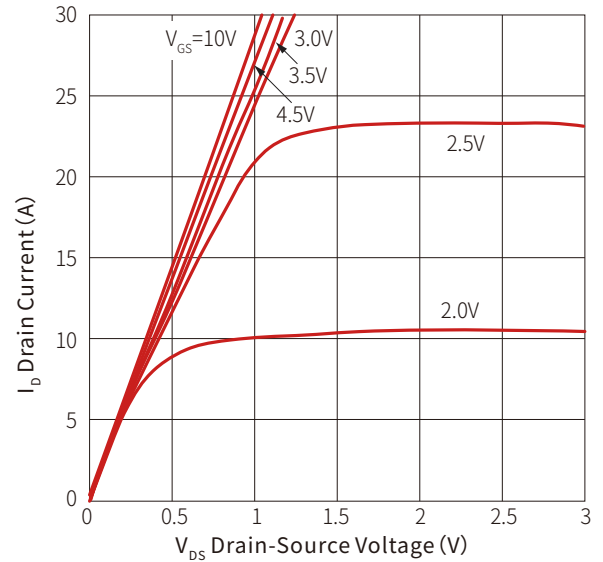


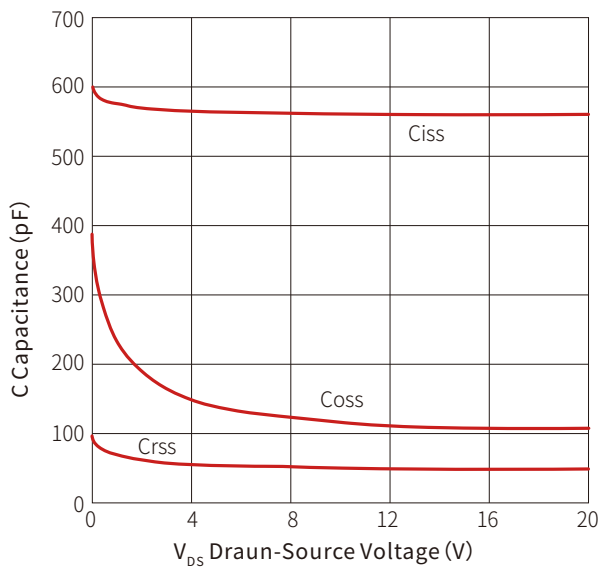
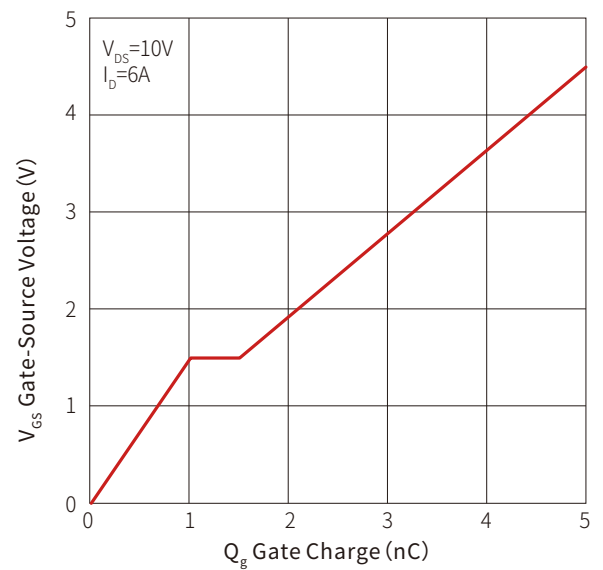
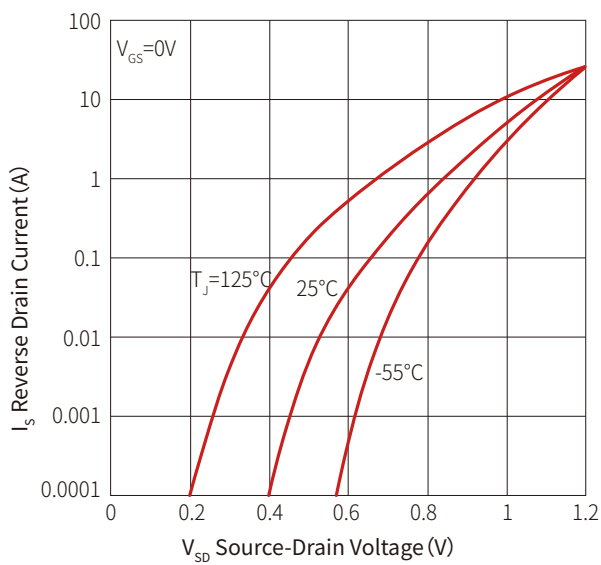
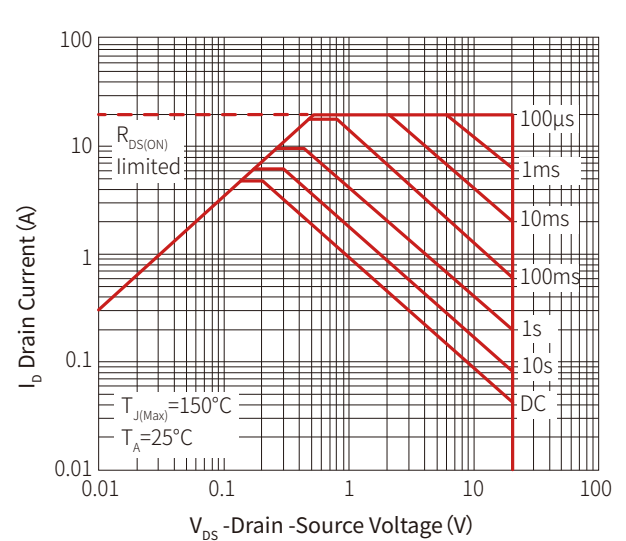
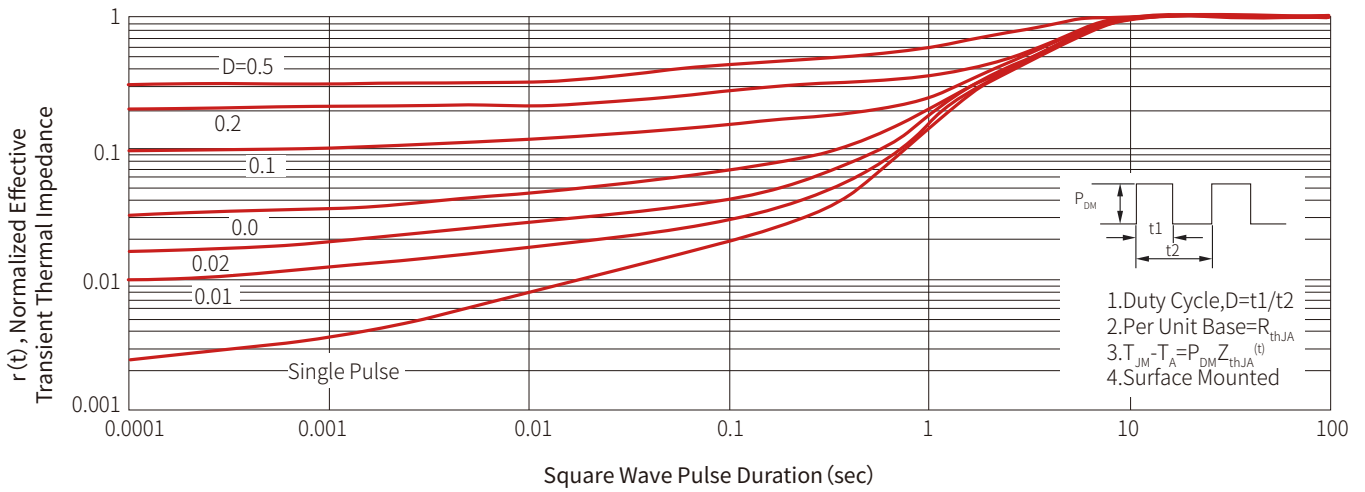
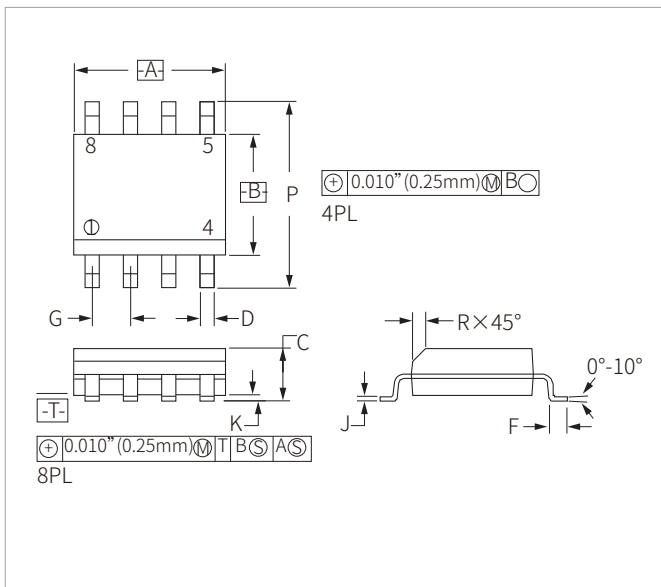
Figure 5:

Figure 6:

Figure 7:

Figure 8:


Figure 9:

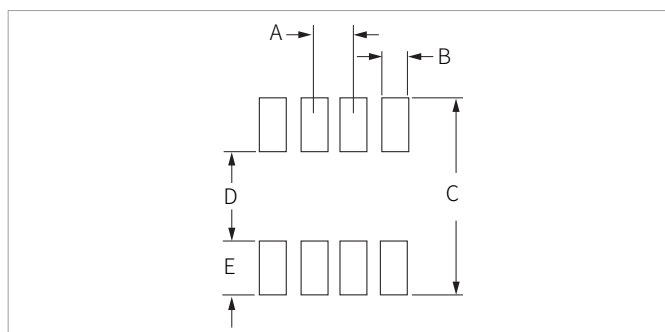


SOP-8 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.70	5.30	0.185	0.209
B	3.80	4.20	0.150	0.165
C	1.35	1.75	0.054	0.068
D	0.35	0.49	0.014	0.019
F	0.40	1.25	0.016	0.049
G	1.27BSC		0.050BSC	
J	0.18	0.25	0.007	0.009
K	0.10	0.25	0.004	0.008
P	5.80	6.20	0.229	0.244
R	0.25	0.50	0.010	0.019

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min	Max	Min	Max
A	1.14	1.40	0.045	0.055
B	0.64	0.89	0.025	0.035
C	6.22	-	0.245	-
D	3.94	4.17	0.155	0.165
E	1.02	1.27	0.040	0.050

ORDERING INFORMATION

Part Number	Component Package	Marking	QTY/Reel	Reel Size
SNM9926PE	SOP-8	 9926 XXXX	3000PCS	7"

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By QR Code

Website



Wechat

To find your local partner within Semiware' s global website: www.semiware.com

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