

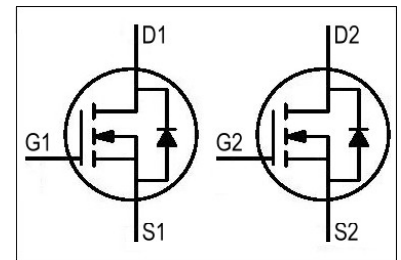
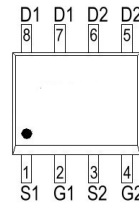
**20V N-Channel Enhancement Mode MOSFET****V_{DS} = 20V**R_{DS(ON)}, V_{GS}@2.5V, I_{DS}@5.2A < 40mΩR_{DS(ON)}, V_{GS}@4.5V, I_{DS}@6A < 30mΩ**Features**

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

**Order Information**

Product	Package	Marking	Packing
PT9926	SOP-8	PT9926	3000PCS/Reel

Maximum Ratings and Thermal Characteristics (TA = 25°C unless otherwise noted)

Parameter		Symbol	Limit	Unit
Drain-Source Voltage		V _{DS}	20	V
Gate-Source Voltage		V _{GS}	± 12	
Continuous Drain Current		I _D	6	A
Pulsed Drain Current ¹⁾		I _{DM}	20	
Maximum Power Dissipation	TA = 25°C	P _D	2	W
	TA = 75°C		1.28	
Operating Junction and Storage Temperature Range		T _J , T _{stg}	-55 to 150	°C
Junction-to-Ambient Thermal Resistance (PCB mounted) ²⁾		R _{θJA}	62.5	°C/W

¹⁾Notes¹⁾ Pulse width limited by maximum junction temperature.²⁾ Surface Mounted on FR4 Board, t ≤ 5 sec.

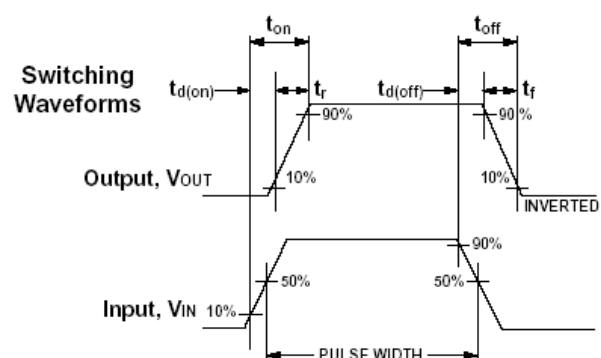
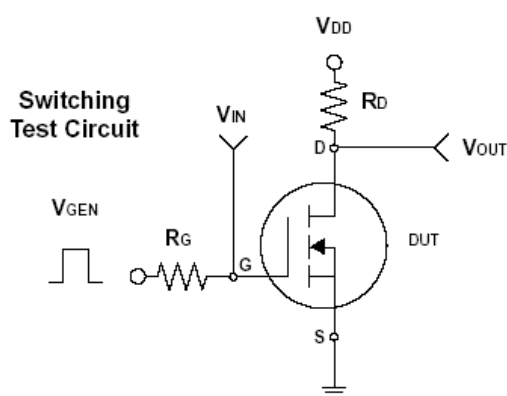


20V N-Channel Enhancement Mode MOSFET

ELECTRICAL CHARACTERISTICS

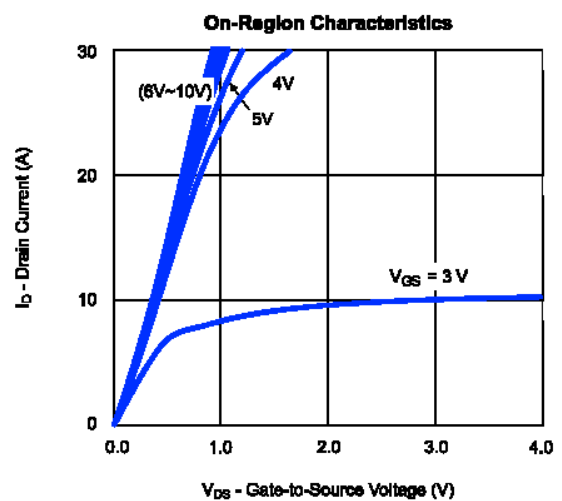
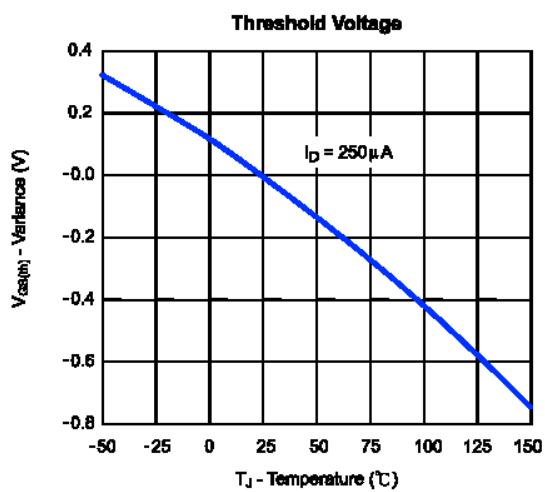
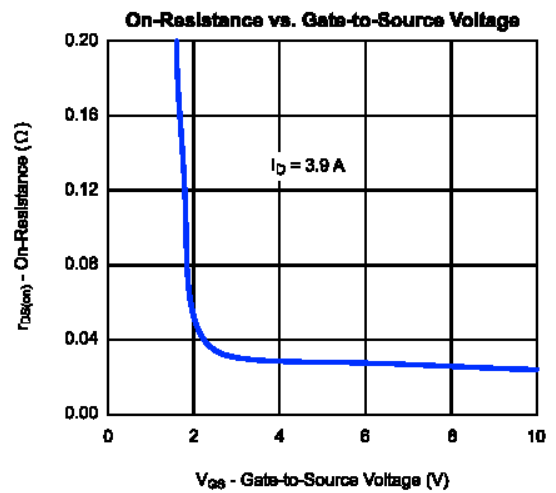
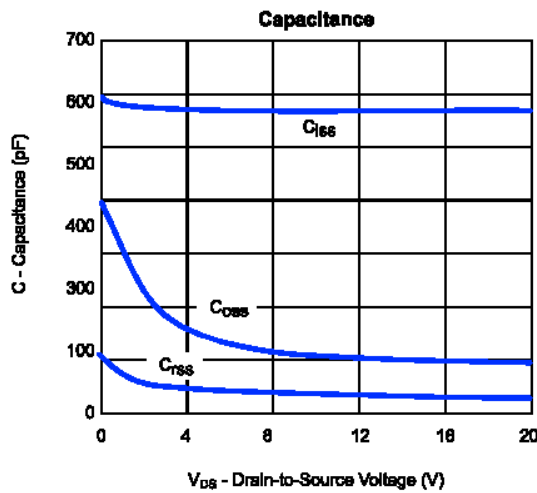
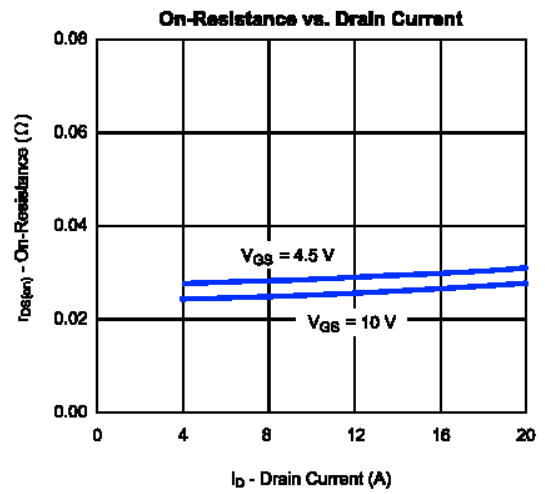
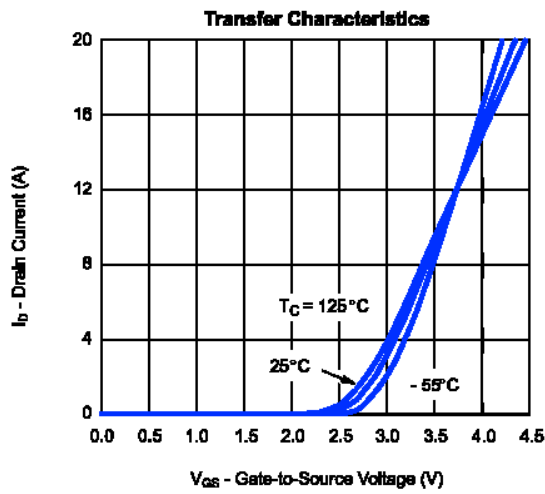
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static						
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} = 0V, I _D = 250uA	20			V
Drain-Source On-State Resistance	R _{DS(on)}	V _{GS} = 2.5V, I _D = 5.2A		32.0	40.0	mΩ
Drain-Source On-State Resistance	R _{DS(on)}	V _{GS} = 4.5V, I _D = 6A		23.0	30.0	
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D = 250uA	0.5		1.2	V
Zero Gate Voltage Drain Current 0	I _{DSS}	V _{DS} = 20V, V _{GS} = 0V			1	uA
Gate Body Leakage	I _{GSS}	V _{GS} = ± 10V, V _{DS} = 0V			±100	nA
Forward Transconductance	g _{fs}	V _{DS} = 10V, I _D = 6A		5		S
Dynamic						
Total Gate Charge	Q _g	V _{DS} = 10V, I _D = 6A V _{GS} = 4.5V		5		nC
Gate-Source Charge	Q _{gs}			1		
Gate-Drain Charge	Q _{gd}			1.5		
Turn-On Delay Time	t _{d(on)}	V _{DD} = 10V, R _G = 6Ω I _D = 1A, V _{GS} = 4.5V		8		ns
Turn-On Rise Time	t _r			10		
Turn-Off Delay Time	t _{d(off)}			22		
Turn-Off Fall Time	t _f			6		
Input Capacitance	C _{iss}	V _{DS} = 8V, V _{GS} = 0V f = 1.0 MHz		565		pF
Output Capacitance	C _{oss}			105		
Reverse Transfer Capacitance	C _{rss}			75		
Source-Drain Diode						
Max. Diode Forward Current	I _S				1.7	A
Diode Forward Voltage	V _{SD}	I _S = 1.7A, V _{GS} = 0V			1.2	V

Note: Pulse test: pulse width $\leq 300\mu s$, duty cycle $\leq 2\%$



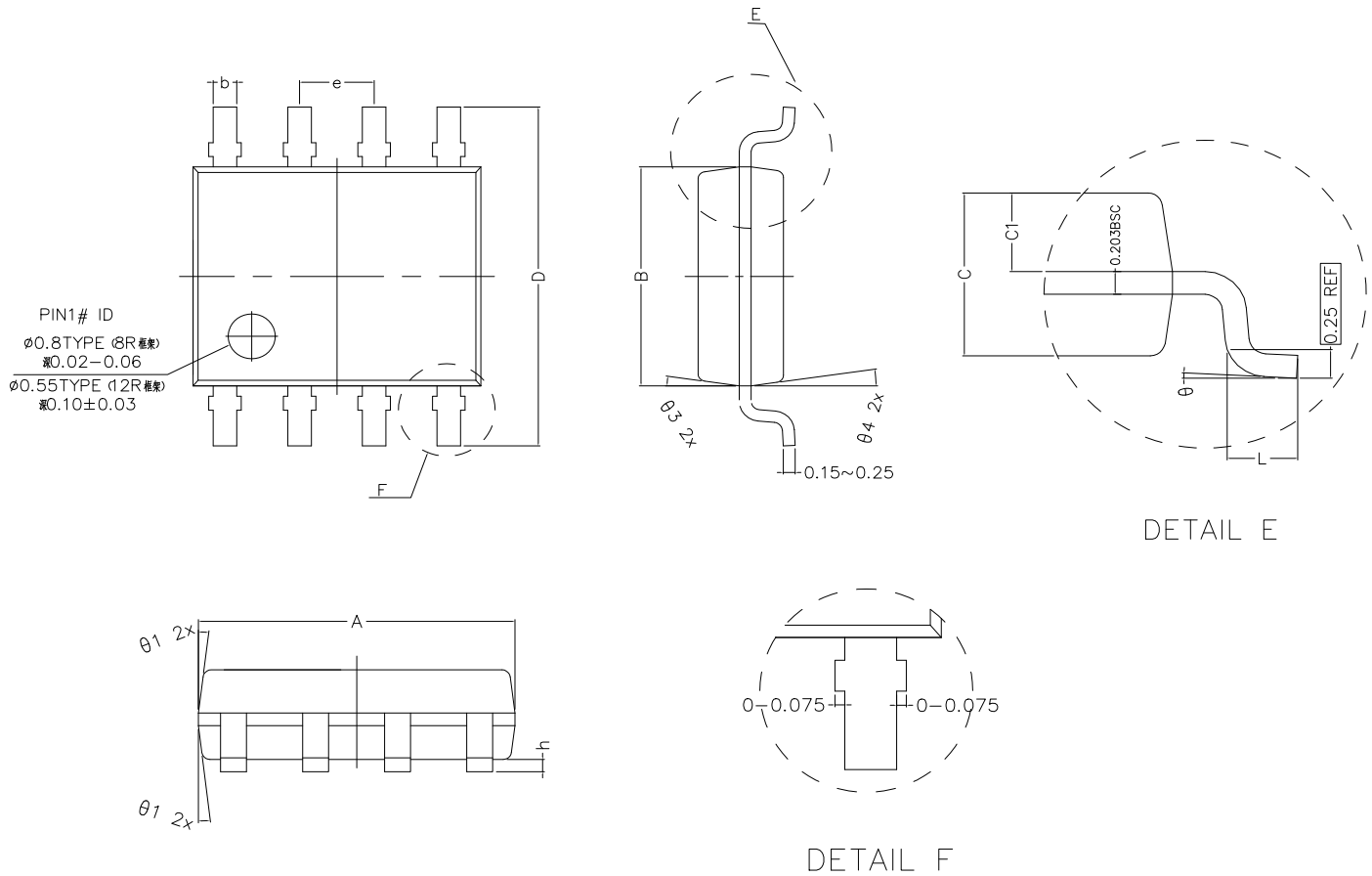
20V N-Channel Enhancement Mode MOSFET

Typical Characteristics (T_J = 25°C Noted)





SOP-8 Package Outline Dimensions (Units: mm)



COMMON DIMENSIONS (UNITS OF MEASURE IS mm)			
	MIN	NORMAL	MAX
A	4.800	4.900	5.000
B	3.800	3.900	4.000
C	1.350	1.450	1.550
C1	0.650	0.700	0.750
D	5.900	6.100	6.300
L	0.500	0.600	0.700
b	0.350	0.400	0.450
h	0.050	0.150	0.250
e	1.270TYPE		
θ_1	7° TYPE(8R) 12° TYPE(12R)		
θ_2	7° TYPE(8R) 10° TYPE(12R)		
θ_3	8° TYPE(8R) 12° TYPE(12R)		
θ_4	8° TYPE(8R) 10° TYPE(12R)		
θ	0° ~ 8°		