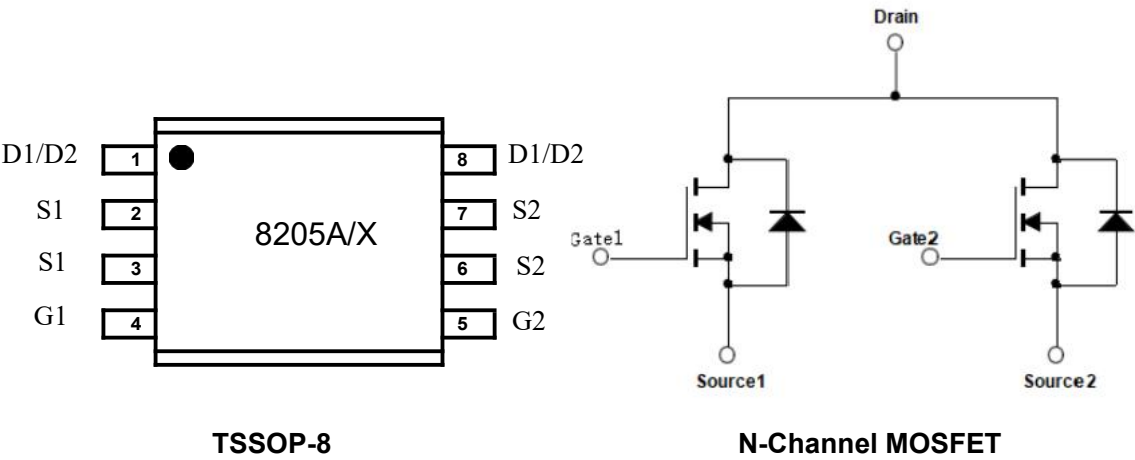


20V N-Channel Enhancement-Mode MOSFET

RDS(ON), Vgs@2.5V, Ids@3.0A = 23mΩ
RDS(ON), Vgs@4.0V, Ids@4.0A = 21mΩ
RDS(ON), Vgs@4.5V, Ids@4.5A = 19mΩ

特点

- 专有的先进平面技术
- 高密度超低电阻设计
- 大功率、大电流应用
- 理想的锂电池应用
- 封装形式：TSSOP-8



最大额定值和热特性 (Ta = 25℃，除非另有说明。)

参数		符号	值	单位
漏源电压		V _{DS}	20	V
栅源电压		V _{GS}	±12	
漏极电流		I _D	6	A
漏极脉冲电流		I _{DM}	20	
最大功耗	TA = 25℃	P _D	1.98	W
	TA = 75℃		1.30	
工作结温和存储温度范围		T _J , T _{stg}	-55 to 150	℃
结环热阻 (PCB 安装)		R _{θJA}	61.5	℃/W

注：重复性极限值：脉冲宽度由最高结温限制。

贴片时回流焊炉温请控制在 265℃ 以下。

电特性

参数	符号	测试条件	最小	典型	最大	单位
静电						
漏源击穿电压	BV _{DSS}	V _{GS} = 0V, I _D = 250uA	20	--	--	V
漏源导通内阻	R _{DS(on)}	V _{GS} = 2.5V,I _D = 3.0A	--	23.0	29.0	mΩ
		V _{GS} = 4.5V,I _D = 4.0A		19.0	24.0	
栅极阈值电压	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250uA	0.4	0.65	0.95	V
栅源短路时漏极电流	I _{DSS}	V _{DS} = 20V, V _{GS} = 0V	--	--	1	uA
漏极短路时截止栅电流	I _{GSS}	V _{GS} = ±12V, I _D =0uA	--	--	±100	nA
跨导	g _{fs}	V _{DS} = 15V, I _D = 6.0A	--	25	--	S
动态						
总栅极电荷	Q _g	V _{DS} = 10V,I _D = 6A V _{GS} = 4.5V		7.49	8.50	nC
栅源电荷	Q _{gs}			2.48	2.96	
栅漏电荷	Q _{gd}			2.04	2.65	
延迟时间（On）	t _{d(on)}	V _{DD} = 10V,I _D = 6AI _D = 1A,V _{GS} = 4.5V		17.5	29.8	ns
上升时间（On）	t _r			28.5	38.2	
延迟时间（Off）	t _{d(off)}			41.2	59.6	
下降时间（Off）	t _f			10.4	26.3	
输入电容	C _{iss}	V _{DS} = 10V, V _{GS} = 0V f=1.0MHz	--	492	--	pF
输出电容	C _{oss}		--	54	--	
反向传输电容	C _{rss}		--	7	--	
漏源二极管						
二极管最大正向电流	I _S	--	--	--	2.0	A
二极管正向电压	V _{SD}	I _S = 1.7A, V _{GS} = 0V	--	--	1.2	V

注：脉冲测试：脉冲宽度≤300μs，占空比≤2%

Typical Performance Characteristics

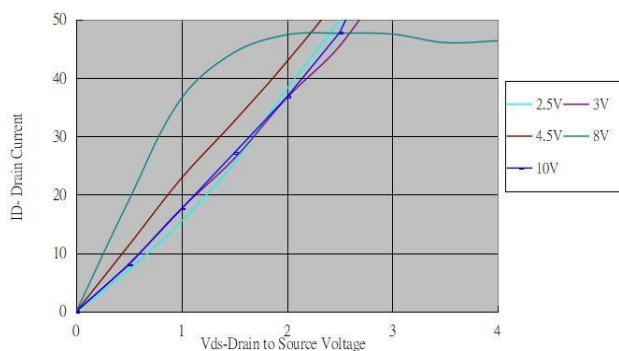


Figure 1: Output Characteristics I_D (A)

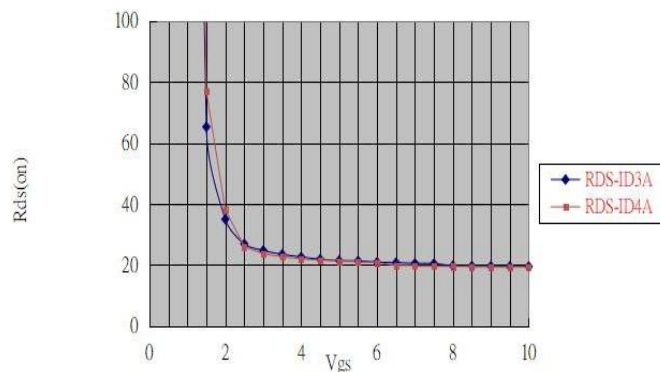


Figure 2: Typical Transfer Characteristics I_D (A)

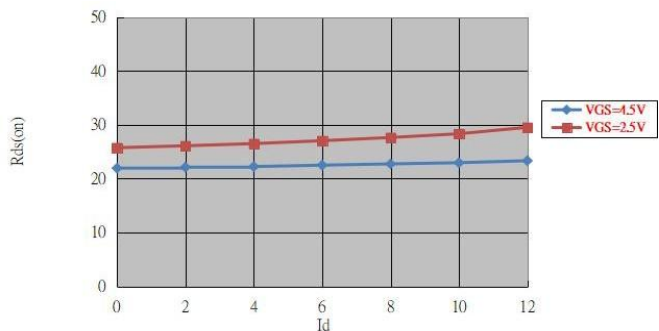


Figure3 On-resistance vs. Drain Current $R_{DS(ON)}$ (m Ω)

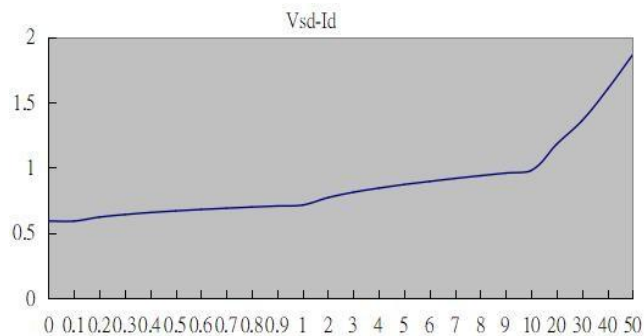


Figure 4: Body Diode Characteristics I_s (A)

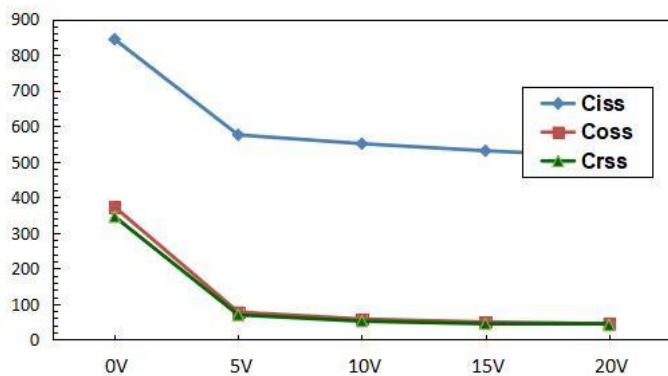
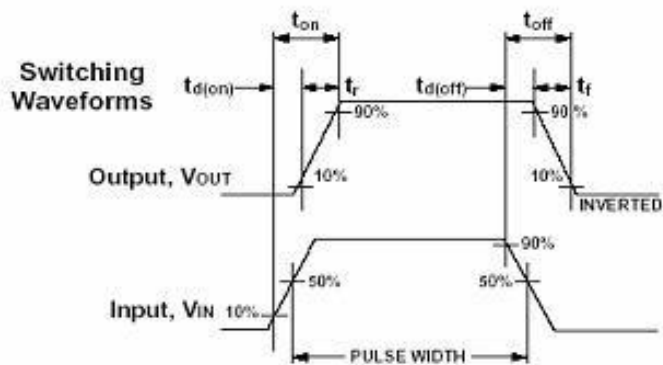
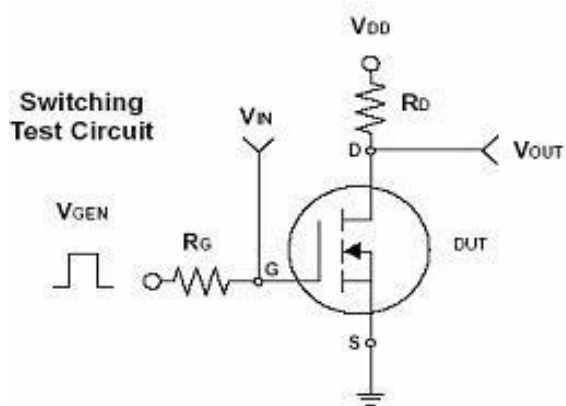
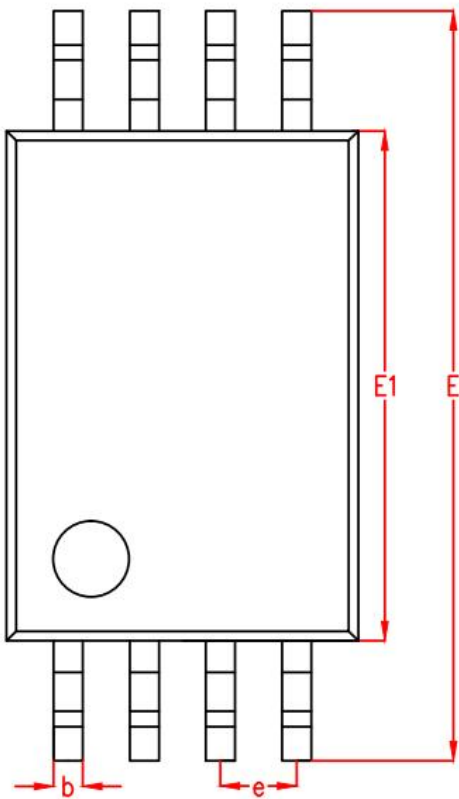
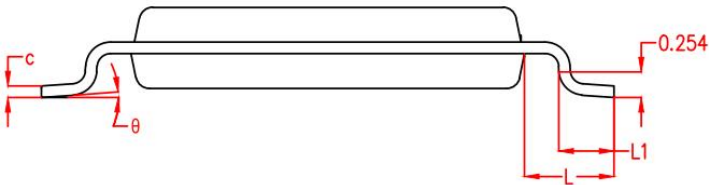
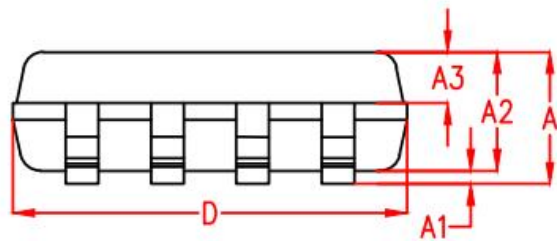


Figure 5: Capacitance Characteristics C (pF)



封装信息

➤ TSSOP8



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	—	1.00	1.10
A1	—	0.10	0.15
A2	0.85	0.90	0.95
A3	0.35	0.38	0.41
b	0.20	0.25	0.30
c	0.08	0.13	0.18
D	2.95	3.00	3.05
E	6.30	6.40	6.50
E1	4.35	4.40	4.45
e	0.65BSC		
L	0.95	1.00	1.05
L1	0.60BSC		
θ	0°	4°	8°