



8205

Power MOSFET

FEATURES

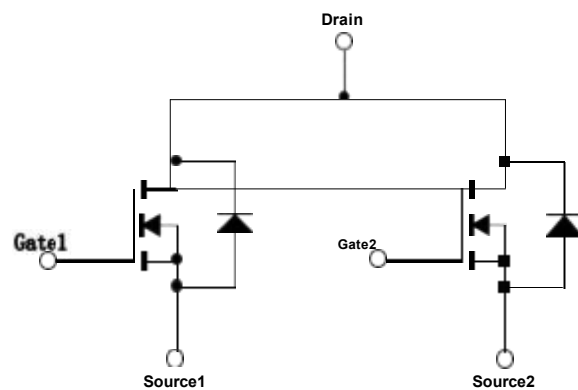
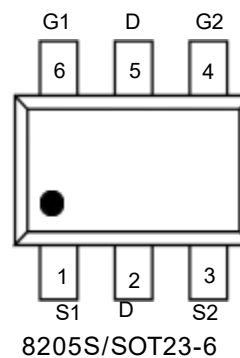
- Die in 8" Wafer Form
- 20V, 5A*, N-channel
- Sampling Tested at Probe

8205A/TSSOP-8



APPLI ACTION

- Portable Equipment
- Battery Powered System



Absolute Maximum Ratings $T_A=25^{\circ}\text{C}$ unless otherwise noted

Parameter		Symbol	Max	Units
漏源电压		V_{DS}	20	V
栅源电压		V_{GS}	± 12	
漏极电流		I_D	5	A
漏极脉冲电流		I_{DM}	20	
最大功耗	$T_A = 25^{\circ}\text{C}$	P_D	2	W
	$T_A = 75^{\circ}\text{C}$		1.3	
工作结温和存储温度范围		T_J, T_{stg}	-55 to 150	$^{\circ}\text{C}$
结环热阻（PCB 安装）		$R_{\theta JA}$	62.5	$^{\circ}\text{C}/\text{W}$

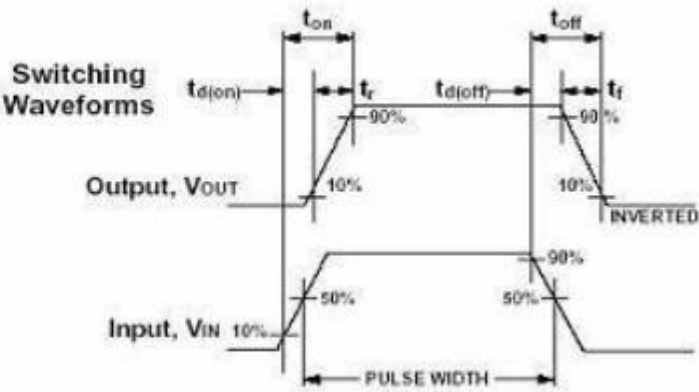
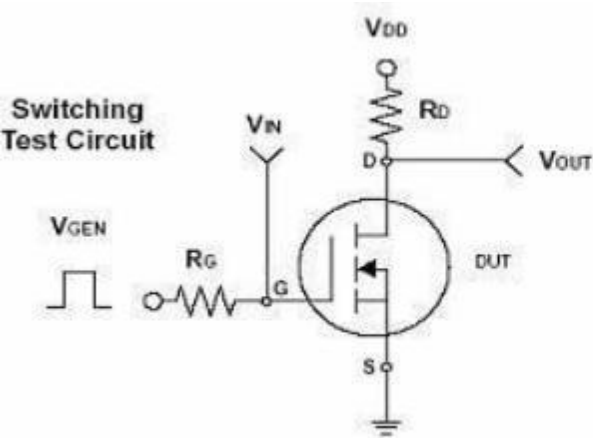
注：重复性极限值：脉冲宽度由最高结温限制。贴片时回流焊炉温请控制在 265°C 以下。

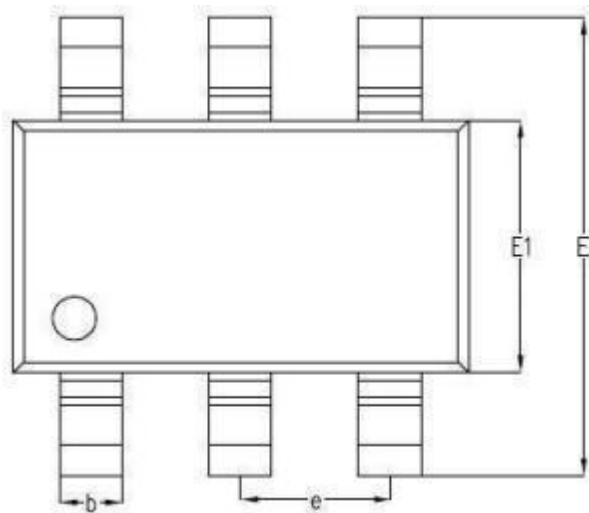
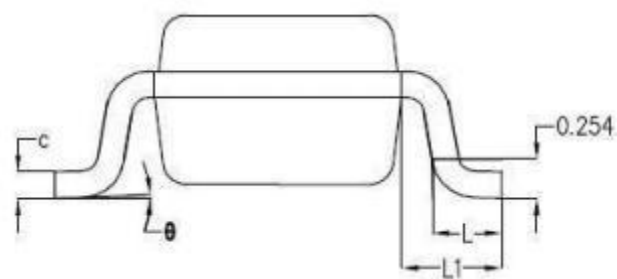
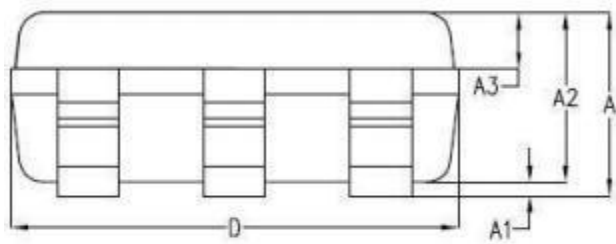
Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typ	Max	Units
静电						
漏源击穿电压	BV_{DSS}	$V_{GS} = 0\text{V}, I_D = 250\mu\text{A}$	20	--	--	V
漏源电阻	$R_{DS(on)}$	$V_{GS} = 4.5\text{V}, I_D = 4\text{A}$	20.5	--	25	$\text{m}\Omega$
		$V_{GS} = 2.5\text{V}, I_D = 3\text{A}$	25	--	34	
栅极阈值电压	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\mu\text{A}$	0.5	--	1.0	V
栅源短路时漏极电流	I_{DSS}	$V_{DS} = 20\text{V}, V_{GS} = 0\text{V}$	--	--	1	μA
漏极短路时截止栅电流	I_{GSS}	$V_{GS} = \pm 8\text{V}, I_D = 0\mu\text{A}$	--	--	± 100	nA

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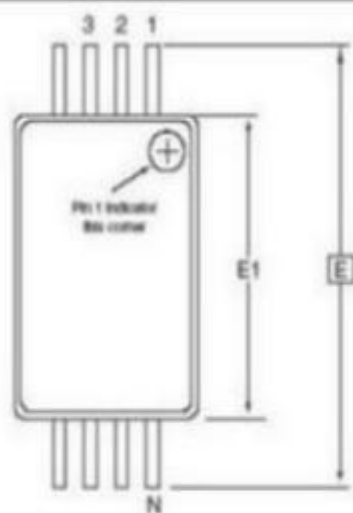
总栅极电荷	Q_g	$V_{DS} = 10V, I_D = 5A$ $V_{GS} = 4.5V$		6.2	8.2	nC
栅源电荷	Q_{gs}			1.6	2.2	
栅漏电荷	Q_{gd}			1.4	1.74	
延迟时间 (On)	$t_{d(on)}$	$V_{DD} = 10V, I_D = 5A$ $I_D = 1A, V_{GS} = 4.5V$		10.5	20.8	ns
上升时间 (On)	t_r			4.6	8.8	
延迟时间 (Off)	$t_{d(off)}$			27.3	54.72	
下降时间 (Off)	t_f			4.2	8.32	
输入电容	C_{iss}	$V_{DS} = 8V, V_{GS} = 0V$ $f=1.0MHz$	--	522.3	--	pF
输出电容	C_{oss}		--	98.48	--	
反向传输电容	C_{rss}		--	74.69	--	
漏源二极管						
二极管最大正向电流	I_S	--	--	--	1.7	A
二极管正向电压	V_{SD}	$I_S = 1.7A, V_{GS} = 0V$	--	--	1.2	V



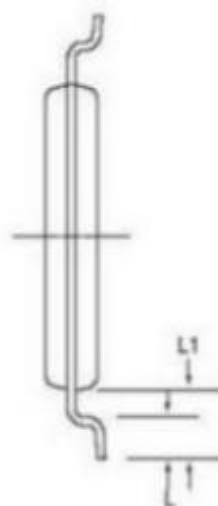


SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	—	1.19	1.24
A1	—	0.05	0.09
A2	1.05	1.10	1.15
A3	0.31	0.36	0.41
b	0.35	0.40	0.45
c	0.12	0.17	0.22
D	2.85	2.90	2.95
E	2.80	2.90	3.00
E1	1.55	1.60	1.65
e	0.95BSC		
L	0.37	0.45	0.53
L1	0.65BSC		
θ	0°	2°	8°

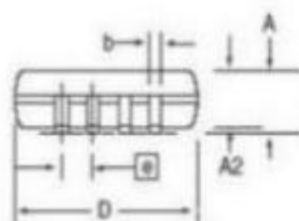
TSSOP8



Top View



End View



Side View

COMMON DIMENSIONS
(Unit of Measure = mm)

SYMBOL	MIN	NOM	MAX	NOTE
D	2.90	3.00	3.10	2, 5
E	6.40 BSC			
E1	4.30	4.40	4.50	3, 5
A	-	-	1.20	
A2	0.80	1.00	1.05	
b	0.19	-	0.30	4
e	0.65 BSC			
L	0.45	0.60	0.75	
L1	1.00 REF			