

## 5A/100V 耐压 N 沟道增强型场效应管

### 产品概述

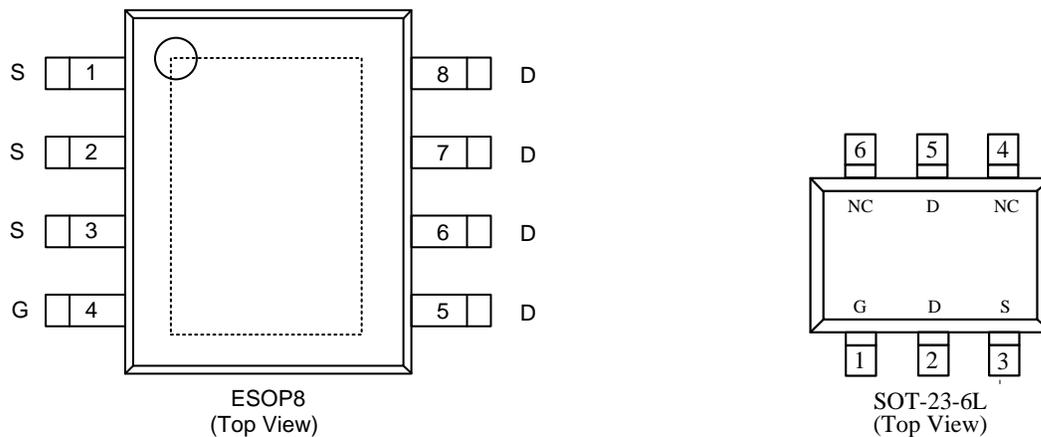
$V_{DS}$	$I_D$	$R_{DS(ON)}(m\Omega)TYP$
100V	5A	135@ $V_{GS}=10V, I_D=5A$

### 产品特点

- 低导通电阻
- 高可靠性
- 驱动要求简单
- 采用 ESOP8/SOT-23-6L

### 封装

- 封装示意图



### 订购信息

产品型号	储存温度	封装形式	Devices Per Reel
LN5N10	-55°C to +150°C	ESOP8/SOT-23-6L	-

### 绝对最大额定值

( $T_A=25^\circ\text{C}$ , 除非特别说明)

参数	符号	极限值	单位
最大漏源电压	$V_{DS}$	100	V
最大栅源电压	$V_{GS}$	$\pm 20$	V
结温 25°C, 最大漏极电流	$I_D$	5	A
工作温度范围	$T_j$	-55—150	°C

■ 电气特性

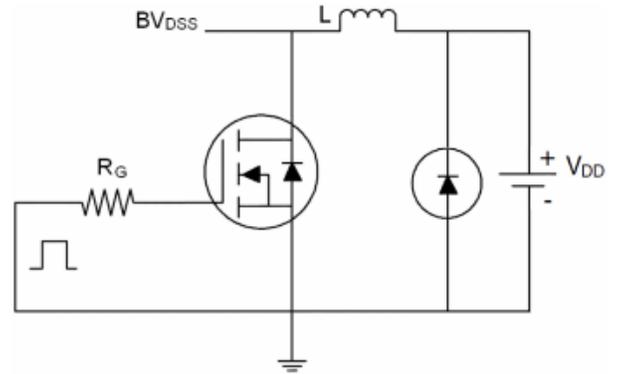
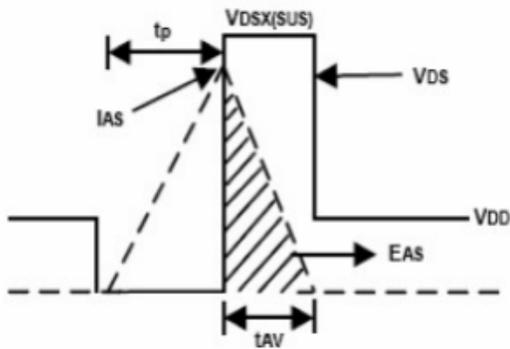
(TA=25°C unless otherwise noted)

参数	符号	条件	最小	典型	最大	单位
关态特性						
漏源击穿电压	BV <sub>DSS</sub>	V <sub>GS</sub> =0V, I <sub>D</sub> =250μA	100			V
零栅压漏电流	I <sub>DSS</sub>	V <sub>DS</sub> =100V, V <sub>GS</sub> =0V			1	μA
栅-衬漏电流	I <sub>GSS</sub>	V <sub>DS</sub> =0V, V <sub>GS</sub> =±20V			±100	nA
开态特性						
栅极阈值电压	V <sub>GS(th)</sub>	V <sub>DS</sub> =V <sub>GS</sub> , I <sub>D</sub> =250μA	1.4	1.5	1.7	V
漏源通态电阻	R <sub>DS(ON)1</sub>	V <sub>GS</sub> =10V, I <sub>D</sub> =1A		135	140	mΩ
漏源通态电阻	R <sub>DS(ON)2</sub>	V <sub>GS</sub> =4.5V, I <sub>D</sub> =1A		140	146	mΩ
漏源二极管特征参数						
漏源二极管正向电压	V <sub>SD</sub>	V <sub>GS</sub> =0V, I <sub>sd</sub> =1 A		0.5	1	V

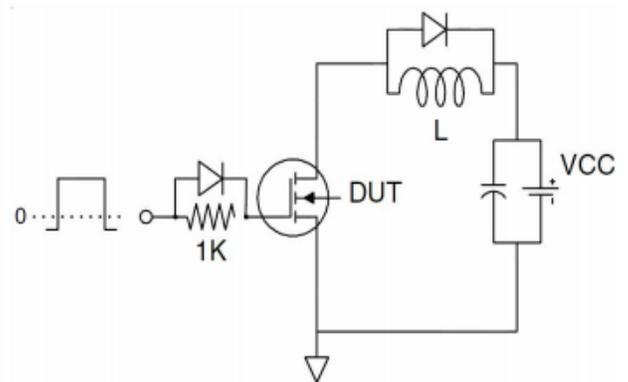
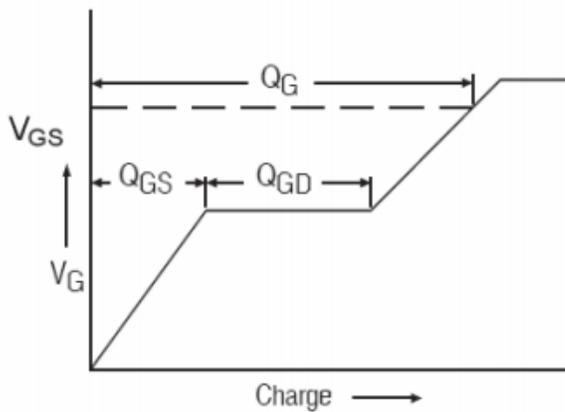
测试电路与特性曲线

- 测试电路图

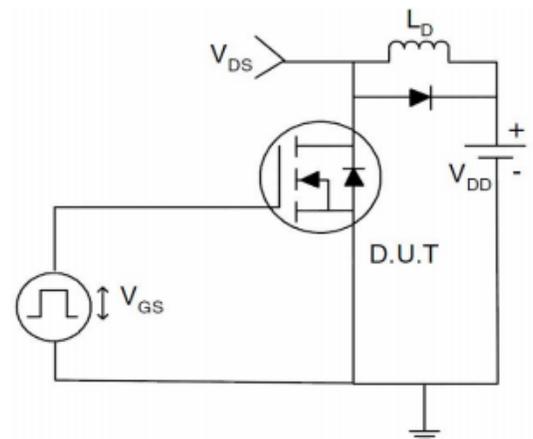
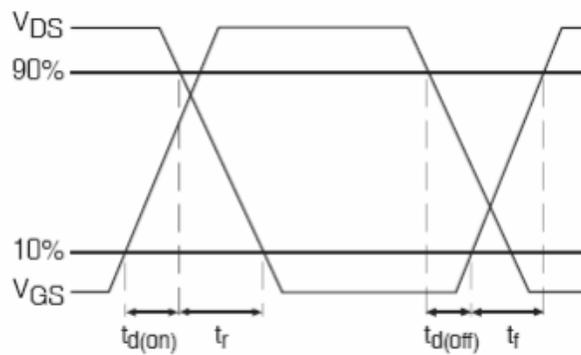
1)  $E_{AS}$  Test Circuits



2) Gate Charge Test Circuit:

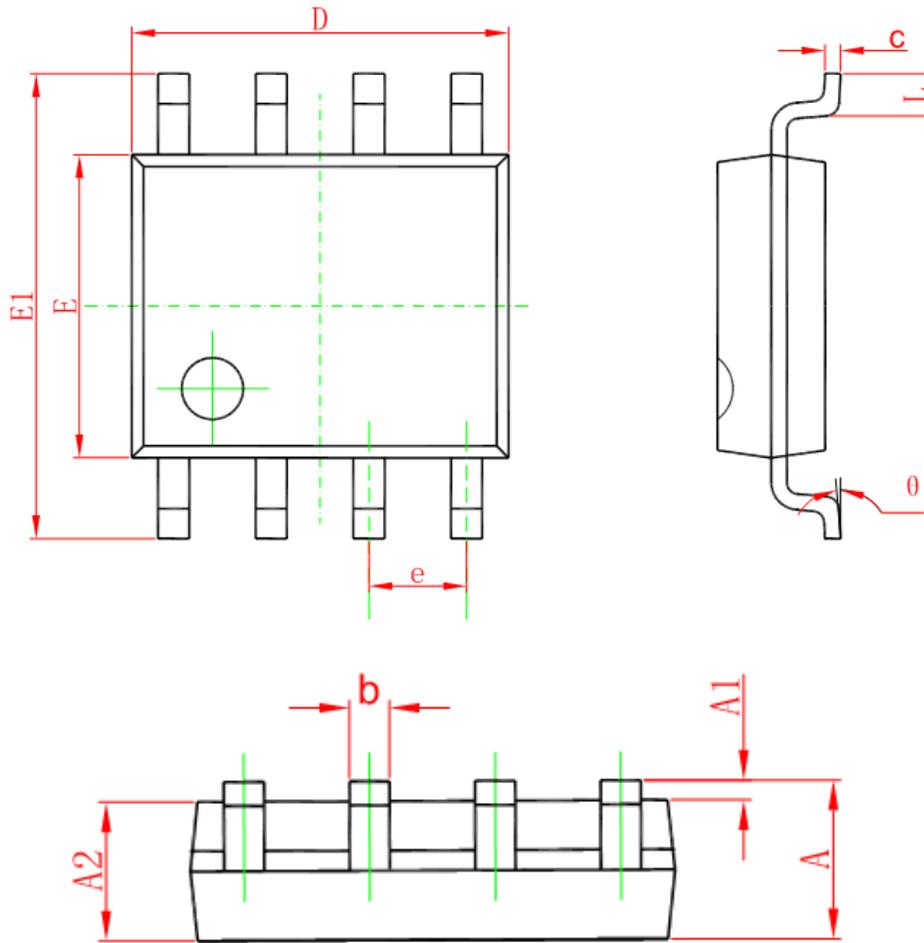


3) Switch Time Test Circuit:



■ 封装尺寸

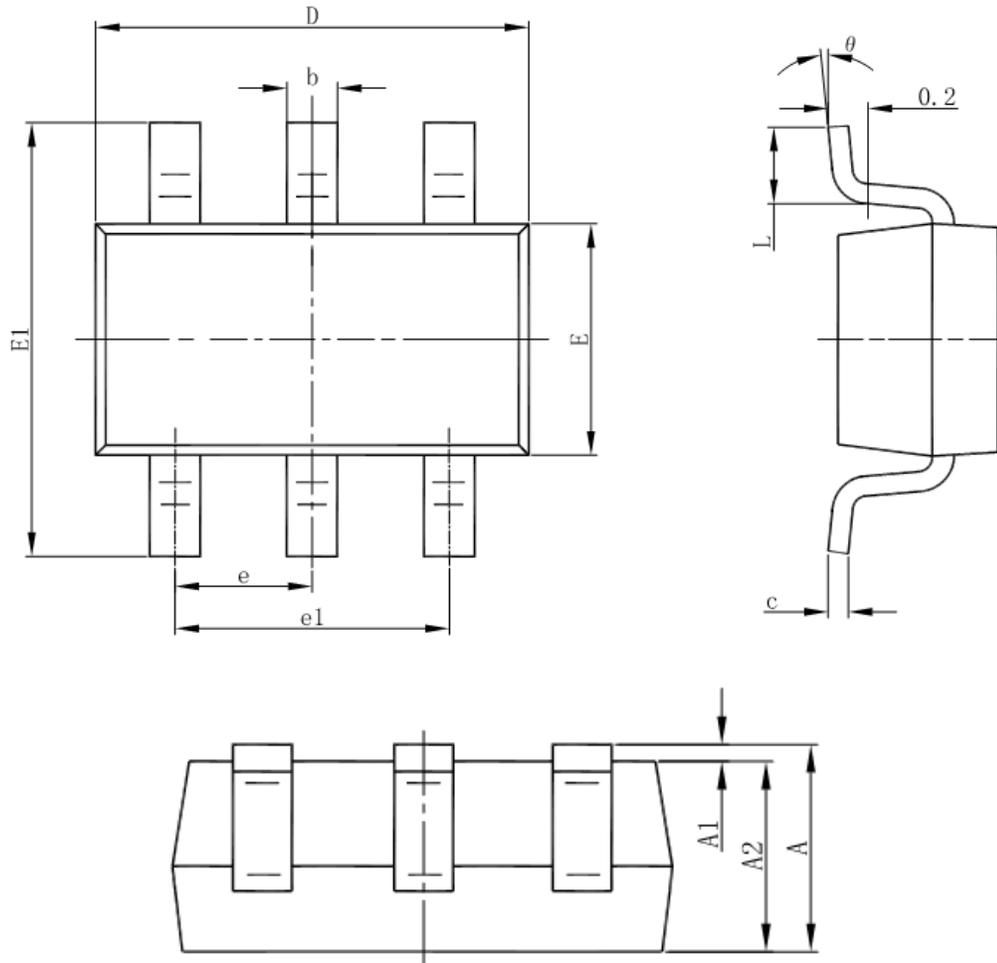
- ESOP8



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.350	1.750	0.053	0.069
A1	0.100	0.250	0.004	0.010
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.006	0.010
D	4.700	5.100	0.185	0.200
E	3.800	4.000	0.150	0.157
E1	5.800	6.200	0.228	0.244
e	1.270 (BSC)		0.050 (BSC)	
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°

■ 封装信息

- SOT-23-6L



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E	1.500	1.700	0.059	0.067
E1	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°