

**SLS2302** (N-Channel Enhancement mode Field Effect Transistor)

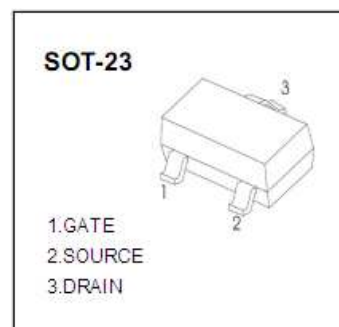
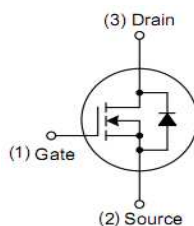
印章/MARKING: A2SHB

特点/Features:

- 1、 电流能力强;
- 2、 导通电阻低;

用途/Applications:

用于高速开关和 DC-DC 转换电路。



极限参数/Absolute maximum ratings (Ta=25°C)

参数/Parameter	符号/ Symbol	数值/Value	单位/Unit
漏极-源极电压/Drain-Source Voltage	V_{DS}	20	V
栅极-源极电压/Gate-Source Voltage	V_{GS}	± 8	V
漏极电流 (持续) /Continuous Drain Current	I_D	2.1	A
耗散功率/Power Dissipation	P_D	0.35	W
热阻/ Thermal Resistance Junction to Ambient	$R_{\theta JA}$	350	$^{\circ}\text{C}/\text{mW}$
结温/Junction Temperature	T_j	150	$^{\circ}\text{C}$
储存温度/Storage Temperature	T_{stg}	-55~150	$^{\circ}\text{C}$

电性能参数/Electrical characteristics (Ta=25°C)

参数	符号	测试条件	最小值	典型值	最大值	单位
静态/Static Characteristics						
源极-漏极击穿电压	$V_{BR(DSS)}$	$V_{GS}=0V, I_D=10\mu A$	30			V
栅极开启电压	$V_{GS(th)}$	$I_D=50\mu A, V_{GS}=V_{DS}$	0.65	0.95	1.2	V
栅极漏电流	I_{GSS}	$V_{GS}=\pm 8V, V_{DS}=0V$			± 100	nA
零栅压漏极电流	I_{DSS}	$V_{GS}=0V, V_{DS}=20V$			1	μA
漏极源极导通电阻 ^①	$R_{DS(on)}$	$V_{GS}=4.5V, I_D=3.6A$		45	60	m Ω
		$V_{GS}=2.5V, I_D=3.1A$		70	115	
正向跨导 ^①	g_{fs}	$V_{DS}=5V, I_D=3.6A$		8		S
动态/Dynamic Characteristics						
输入电容 ^②	C_{iss}	$V_{DS}=10V, V_{GS}=0V, f=1\text{MHz}$		300		pF
输出电容 ^②	C_{oss}			120		
反向传输电容 ^②	C_{rss}			80		
开关参数/Switching Characteristics						
开启延时 ^②	$t_{d(on)}$	$V_{DD}=10V$ $R_L=5.5\Omega, I_D\approx 3.6A$ $V_{GEN}=4.5V, R_g=6\Omega,$		7	15	ns
上升时间 ^②	t_r			55	80	ns
关闭延时 ^②	$t_{d(off)}$			16	60	ns
下降延时 ^②	t_f			10	25	ns
漏极-源极二极管参数/Drain-source Body Diode Characteristics						
二极管正向压降	V_{SD}	$I_S=0.94A, V_{GS}=0V$		0.76	1.2	V

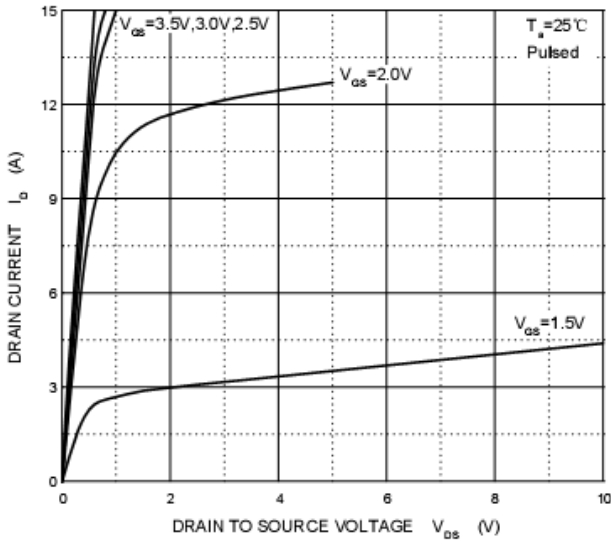
注: ① 脉冲测试脉冲宽度 $\leq 300\mu S$, 占空比 $\leq 2\%$;

② 这些参数未通过验证;

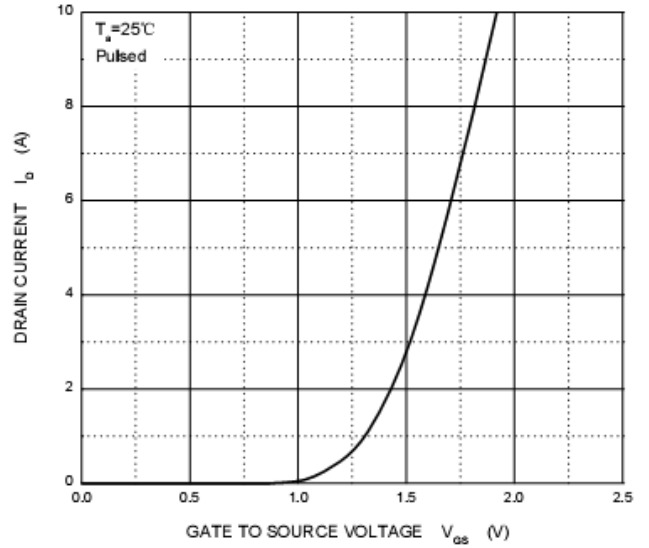


典型特性曲线图/Typical Characteristics

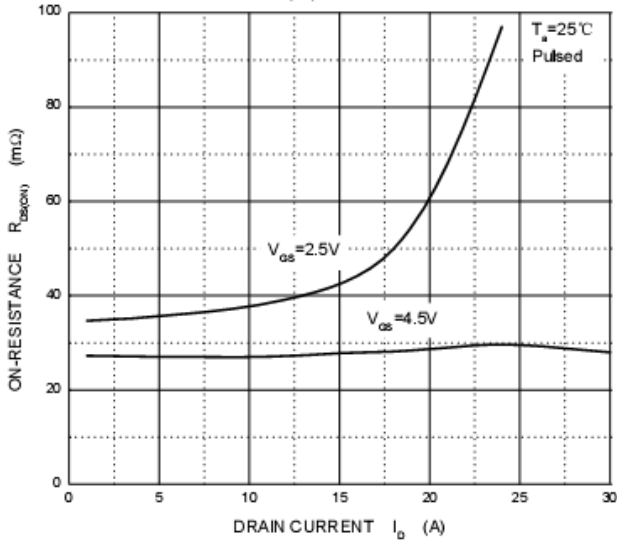
Output Characteristics



Transfer Characteristics



$R_{DS(ON)}$ — I_D



$R_{DS(ON)}$ — V_{GS}

