



型号/TYPE: SLS1668

20V Full-bridge of MOSFET 20V 全桥MOS管

主要特性/Features

低栅极电荷 Low gate charge

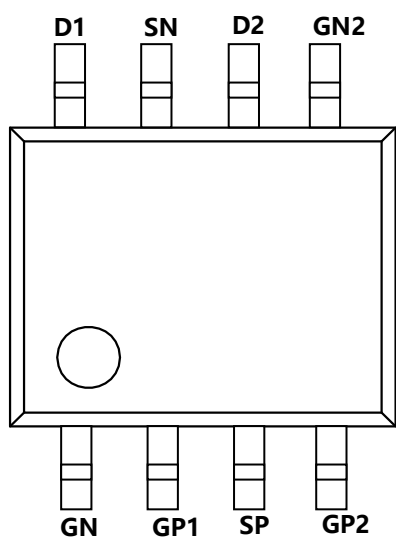
应用于负载开关 Use as a load switch

应用于PWM Use in PWM applications

应用/Application

消费电子产品 Consumer electronics

印字/MARKING 引脚定义/pin definition





N沟道极限参数/N-Channel Absolute maximum ratings(Ta=25°C)

参数Parameter	符号Symbol	数值Value	单位Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	± 10	V
Continuous Drain Current	I_D	2.0	A
Pulsed Drain Current (note1)	I_{DM}	12	A
Power Dissipation	P_D (Ta=25°C)	1.4	W
Power Dissipation	P_D (Ta=75°C)	1.0	W
Thermal Resistance Junction to Ambient(note2)	$R_{\theta JA}$	100	°C/mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 ~ 150	°C

N沟道电性能参数/ P-Channel Electrical characteristics (Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
静态参数/Static Characteristics						
Drain-Source Breakdown Voltage	$V_{BR(DSS)}$	$V_{GS}=0V, I_D=250\mu A$	20			V
Gate Threshold Voltage(note3)	$V_{GS(th)}$	$I_D=250\mu A, V_{GS}=V_{DS}$	0.45		1.0	V
Gate-body leakage current	I_{GSS}	$V_{GS}=\pm 10V, V_{DS}=0V$			± 100	nA
Zero gate voltage drain current	I_{DSS}	$V_{DS}=18V, V_{GS}=0V$			1	μA
Drain-source on-resistance(note3)	$R_{DS(ON)}$	$V_{GS}=10V, I_D=2.5A$			60	m Ω
		$V_{GS}=4.5V, I_D=2A$			70	
Drain-Source Diode Forward Voltage(note3)	V_{SD}	$V_{GS}=0V, I_{SD}=1A$	0.5		1.2	V
动态参数/Dynamic Characteristics(note4)						
Input Capacitance	C_{iss}	$V_{DS}=10V, V_{GS}=0V,$ $f=1MHz$		550		pF
Output Capacitance	C_{oss}			85		
Reverse Transfer Capacitance	C_{rss}			66		
开关参数/Switching Characteristics(note4)						
Turn-on delay time	$t_{d(on)}$	$V_{DD}=10V, I_{DS}=1A,$ $V_{GS}=6V,$ $R_{GEN}=6\Omega,$		4		ns
Turn-on rise time	t_r			3.2		ns
Turn-off delay time	$t_{d(off)}$			28		ns
Turn-off fall time	t_f			6		ns



P沟道极限参数/P-Channel Absolute maximum ratings(Ta=25°C)

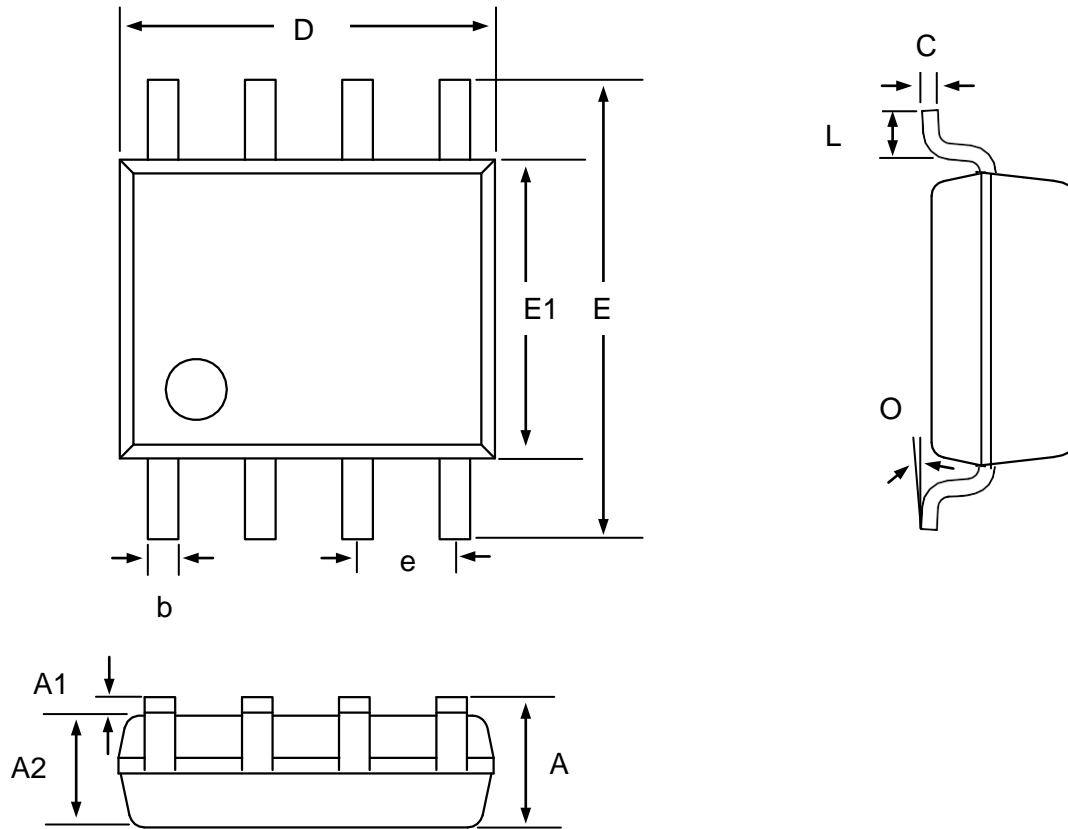
参数Parameter	符号Symbol	数值Value	单位Unit
Drain-Source Voltage	V_{DS}	-20	V
Gate-Source Voltage	V_{GS}	± 10	V
Continuous Drain Current	I_D	-1.8	A
Pulsed Drain Current (note1)	I_{DM}	-10	A
Power Dissipation	P_D (Ta=25°C)	1.4	W
Thermal Resistance Junction to Ambient(note2)	$R_{\theta JA}$	100	°C/mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 ~ 150	°C

P沟道电性能参数/ P-Channel Electrical characteristics (Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
静态参数/Static Characteristics						
Drain-Source Breakdown Voltage	$V_{BR(DSS)}$	$V_{GS}=0V, I_D=-250\mu A$	-20			V
Gate Threshold Voltage(note3)	$V_{GS(th)}$	$I_D=250\mu A, V_{GS}=V_{DS}$	-0.45		-1.0	V
Gate-body leakage current	I_{GSS}	$V_{GS}=\pm 10V, V_{DS}=0V$			± 100	nA
Zero gate voltage drain current	I_{DSS}	$V_{DS}=-18V, V_{GS}=0V$			-1	μA
Drain-source on-resistance(note3)	$R_{DS(ON)}$	$V_{GS}=-10V, I_D=-1.8A$			100	m Ω
		$V_{GS}=-4.5V, I_D=-1.3A$			130	
Drain-Source Diode Forward Voltage(note3)	V_{SD}	$V_{GS}=0V, I_{SD}=-1A$	-0.5		-1.2	V
动态参数/Dynamic Characteristics(note4)						
Input Capacitance	C_{iss}	$V_{DS}=-10V, V_{GS}=0V, f=1MHz$		650		pF
Output Capacitance	C_{oss}			125		
Reverse Transfer Capacitance	C_{rss}			85		
开关参数/Switching Characteristics(note4)						
Turn-on delay time	$t_{d(on)}$	$V_{DD}=-10V, I_{DS}=-1A, V_{GS}=-6V, R_{GEN}=6\Omega,$		7.5		ns
Turn-on rise time	t_r			4.5		ns
Turn-off delay time	$t_{d(off)}$			45.5		ns
Turn-off fall time	t_f			15		ns



封装外观尺寸/SOP8 Package Information



Symbol	Dim in mm		
	Min	Nor	Max
A	1.350	1.550	1.750
A1	0.100	0.175	0.250
A2	1.350	1.450	1.550
b	0.330	0.420	0.510
c	0.170	0.210	0.250
D	4.800	4.900	5.000
e	1.270(BSC)		
E	3.800	3.900	4.000
E1	0.400	0.835	1.2700
L	0°	4°	8°