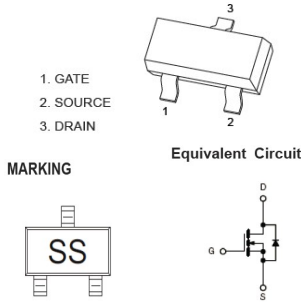




V(BR)DSS	RDS(ON)MAX	ID
50V	3.5Ω@10V	0.22A
	6Ω@4.5V	

**SOT-23**



**特征 Features**

- TrenchFET Power MOSFET
- Load Switch for Portable Devices.
- DC/DC Converter.

**机械数据 Mechanical Data**

- 封装: SOT-23 封装 SOT-23 Small Outline Plastic Package.
- 环氧树脂 UL 易燃等级 Epoxy UL: 94V-0.
- 安装位置: 任意 Mounting Position: Any.

**极限值和温度特性**(TA = 25°C 除非另有规定)

**Maximum Ratings & Thermal Characteristics** (Ratings at 25°C ambient temperature unless otherwise specified.)

参数 Parameters	符号 Symbol	数值 Value	单位 Unit
Drain-Source Voltage	V <sub>DS</sub>	50	V
Gate-Source Voltage	V <sub>GS</sub>	±20	V
Continuous Drain Current	I <sub>D</sub>	0.22	A
Power Dissipation	P <sub>D</sub>	350	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-50-+150	°C
Thermal Resistance From Junction to Ambient	R <sub>θJA</sub>	357	°C/W

**电特性** (TA = 25°C 除非另有规定)

**Electrical Characteristics** (Ratings at 25°C ambient temperature unless otherwise specified.)

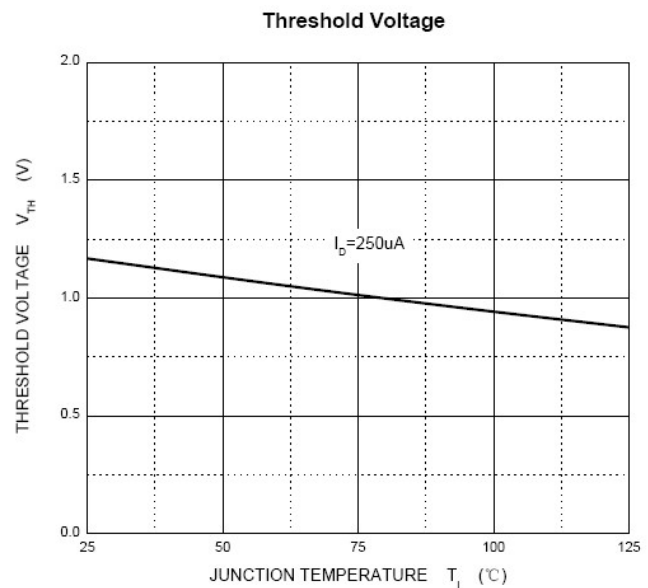
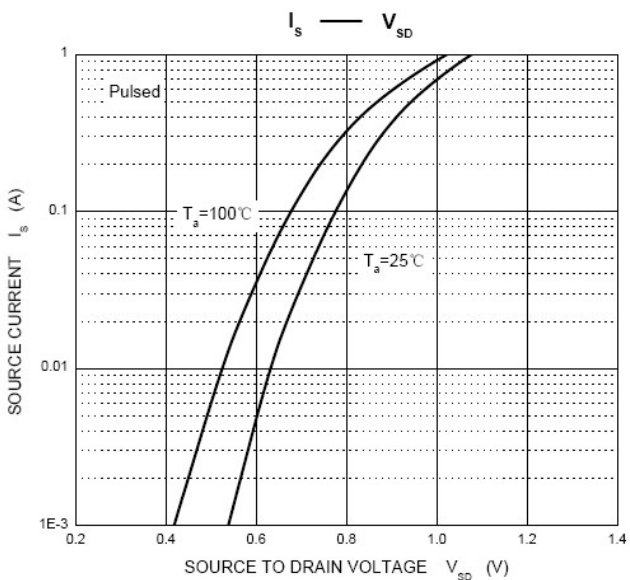
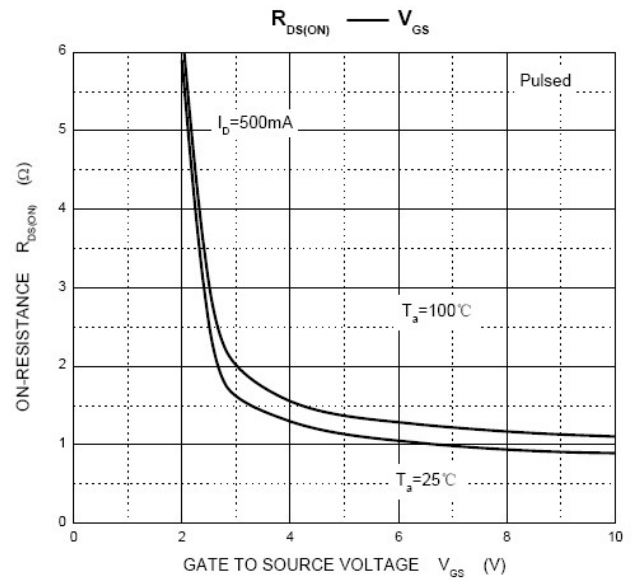
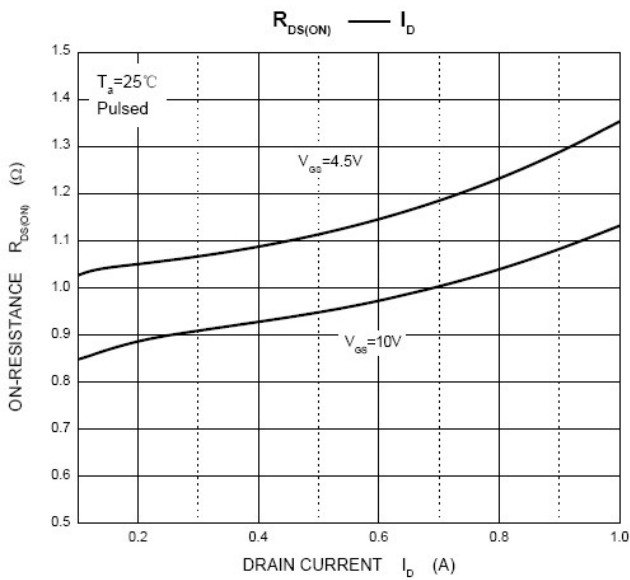
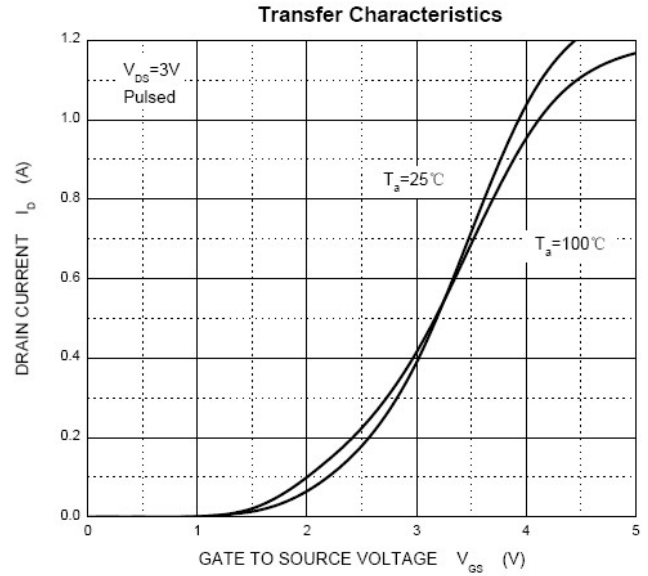
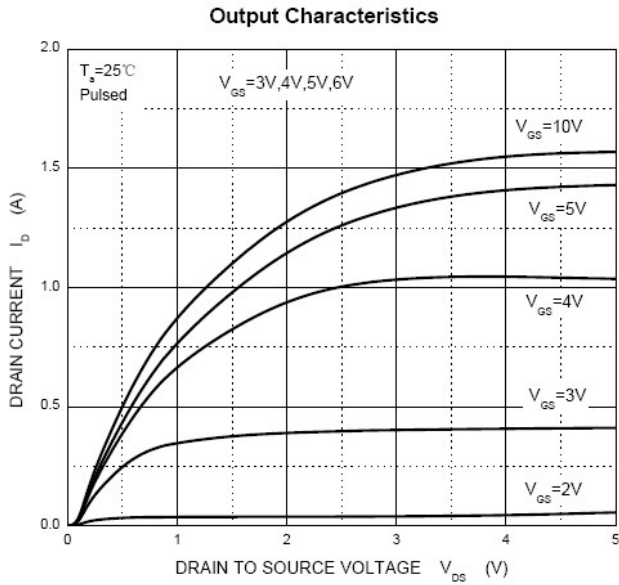
参数 Parameter	符号 Symbols	测试条件 Test Condition	界限 Limits			单位 Unit
			Min	Typ	Max	
<b>Static</b>						
Drain-Source Breakdown Voltage	V(BR)DSS	V <sub>GS</sub> =0V, I <sub>D</sub> =250uA	50			V
Gate-Threshold voltage(note1)	V <sub>GS(th)</sub>	V <sub>DS</sub> =V <sub>GS</sub> , I <sub>D</sub> =1mA	0.8		1.5	V
Gate-body Leakage	I <sub>GSS</sub>	V <sub>DS</sub> =0V, V <sub>GS</sub> =±20V			±100	nA
Zero Gate Voltage Drain current	I <sub>DSS</sub>	V <sub>DS</sub> =50V, V <sub>GS</sub> =0V			0.5	uA
		V <sub>DS</sub> =30V, V <sub>GS</sub> =0V			0.1	
Drain-Source On-Resistance (note1)	R <sub>DS(ON)</sub>	V <sub>GS</sub> =10V, I <sub>D</sub> =0.22A			3.5	Ω
		V <sub>GS</sub> =4.5V, I <sub>C</sub> =0.22A			6	
Forward trans conductance (note1)	g <sub>fs</sub>	V <sub>DS</sub> =10V, I <sub>D</sub> =0.22A	0.12			S
Diode forward voltage(note1)	V <sub>SD</sub>	I <sub>S</sub> =0.44A, V <sub>GS</sub> =0V			1.4	V
<b>Dynamic(note2)</b>						
Input capacitance	C <sub>iss</sub>	V <sub>DS</sub> =25V, V <sub>GS</sub> =0V, f=1MHz		27		pF
Output capacitance	C <sub>oss</sub>			13		
Reverse Transfer capacitance	C <sub>rss</sub>			6		
<b>Switching(note1,2)</b>						
Turn-on Time	t <sub>d(on)</sub>	V <sub>DD</sub> =30V, R <sub>GEN</sub> =6Ω, V <sub>DS</sub> =10V, I <sub>D</sub> =0.29A,			5	ns
Rise time	t <sub>r</sub>				18	
Turn-off Time	t <sub>d(off)</sub>				36	
Fall time	t <sub>f</sub>				14	

Notes: a. Pulse Test: Pulse Width ≤300us, Duty Cycle≤2%.  
 b. These parameters have no way to verify.



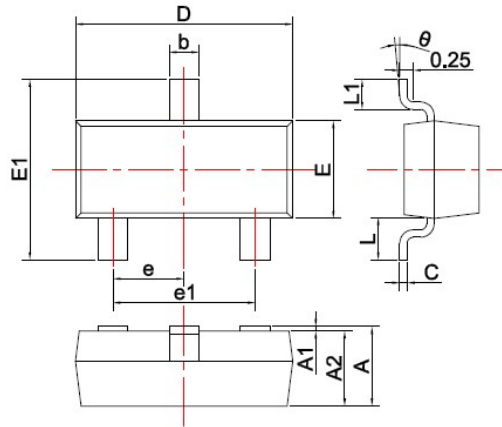


Typical characteristics





SOT-23 PACKAGE OUTLINE Plastic surface mounted package

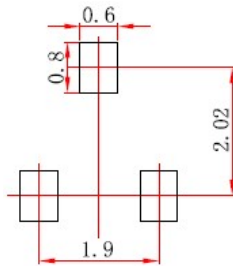


SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

Unit: mm

焊盘设计参考 Precautions: PCB Design

Recommended land dimensions for SOT-23 diode. Electrode patterns for PCBs



- Note:
1. Controlling dimension: In millimeters.
  2. General tolerance: ±0.05mm.
  3. The pad layout is for reference purposes only.