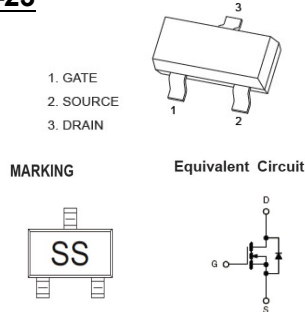


V(BR)DSS	RDS(ON)MAX	ID
50V	3.5Ω@10V	0.22A
	6Ω@4.5V	

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 _{DS}	50	V
Gate-Source Voltage	V _{GS}	±20	V
Continuous Drain Current	I _D	0.22	A
Power Dissipation	P _D	350	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-50-+150	°C
Thermal Resistance From Junction to Ambient	R _{θJA}	357	°C/W

电特性 (TA = 25°C 除非另有规定)

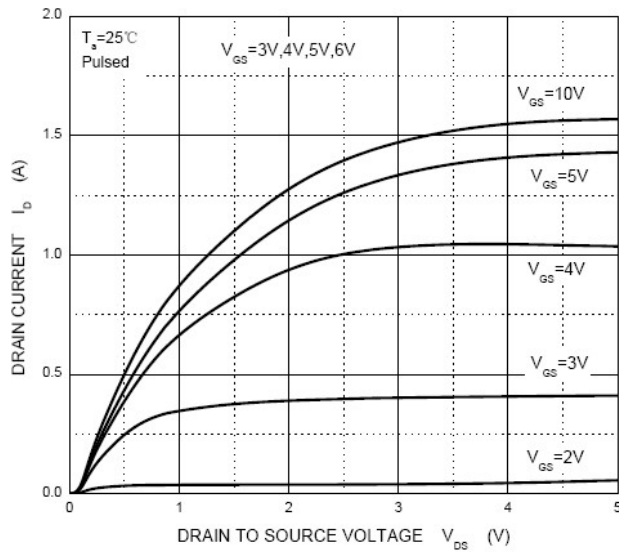
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

参数 Parameter	符号 Symbols	测试条件 Test Condition	界限 Limits			单位 Unit
			Min	Typ	Max	
Static						
Drain-Source Breakdown Voltage	V(BR)DSS	VGS=0V, ID=250uA	50			V
Gate-Threshold voltage(note1)	V GS (th)	VDS=VGS, ID=1mA	0.8		1.5	V
Gate-body Leakage	IGSS	VDS=0V, VGS=±20V			±100	nA
Zero Gate Voltage Drain current	IDSS	VDS=50V, VGS=0V			0.5	uA
		VDS=30V, VGS=0V			0.1	
Drain Source On Resistance (note 1)	RDS(ON)	VGS=10V, ID=0.22A			3.5	Ω
		VGS=4.5V, IC=0.22A			6	
Forward trans conductance (note1)	gfs	VDS=10V, ID=0.22A	0.12			S
Diode forward voltage(note1)	VSD	IS=0.44A, VGS=0V			1.4	V
Dynamic(note2)						
Input capacitance	Ciss	VDS=25V, VGS=0V,f=1MHz		27		pF
Output capacitance	Coss			13		
Reverse Transfer capacitance	Crss			6		
Switching(note1,2)						
Turn-on Time	td(on)	VDD=30V, RGEN=6Ω, VDS=10V, ID≈0.29A,			5	ns
Rise time	tr				18	
Turn-off Time	td(off)				36	
Fall time	tf				14	

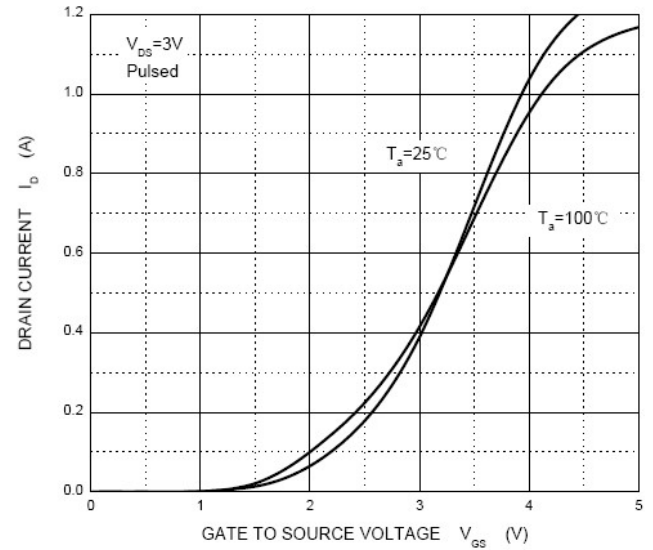
Notes: a. Pulse Test: Pulse Width ≤300us, Duty Cycle≤2%.
b. These parameters have no way to verify.

Typical characteristics

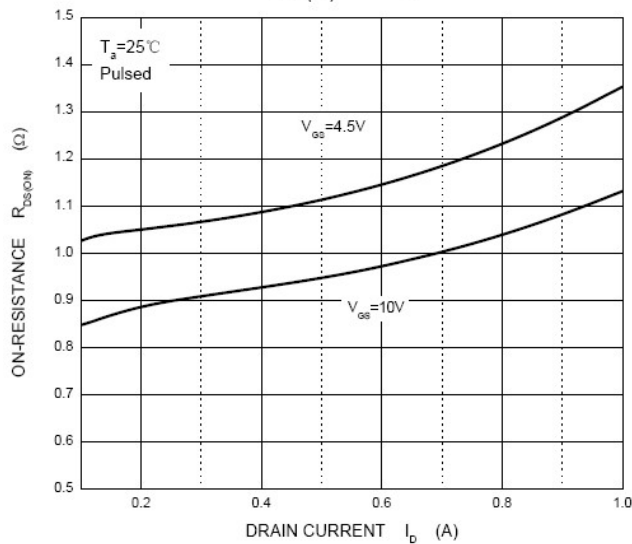
Output Characteristics



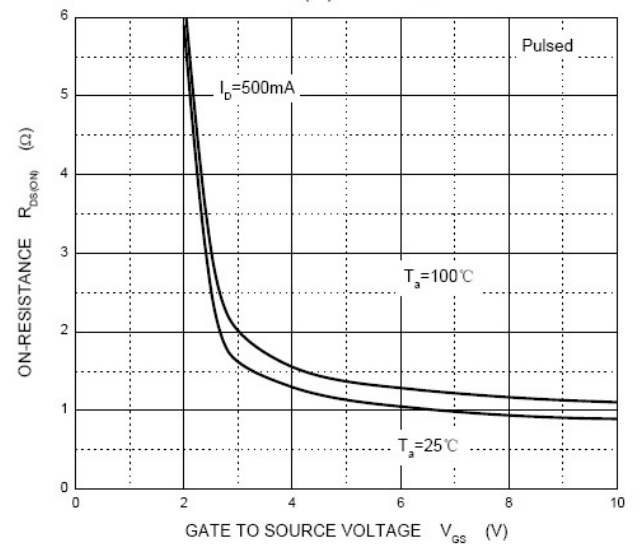
Transfer Characteristics



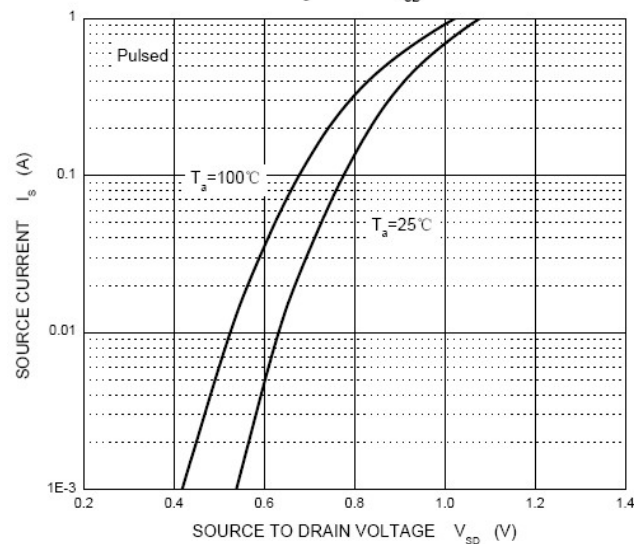
$R_{DS(ON)}$ — I_D



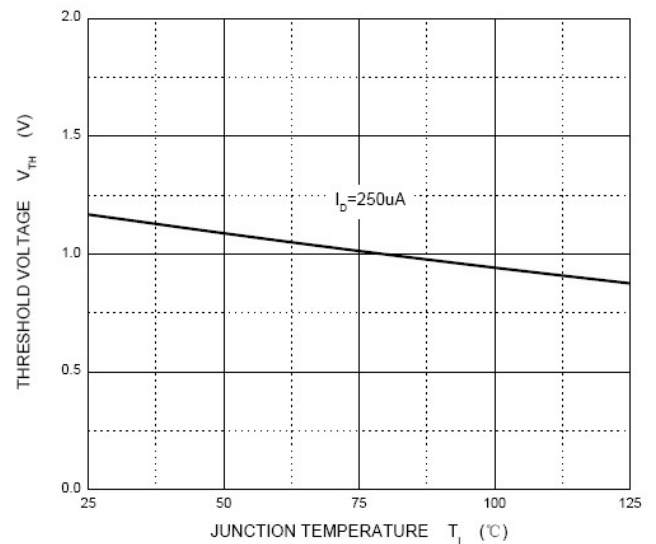
$R_{DS(ON)}$ — V_{GS}

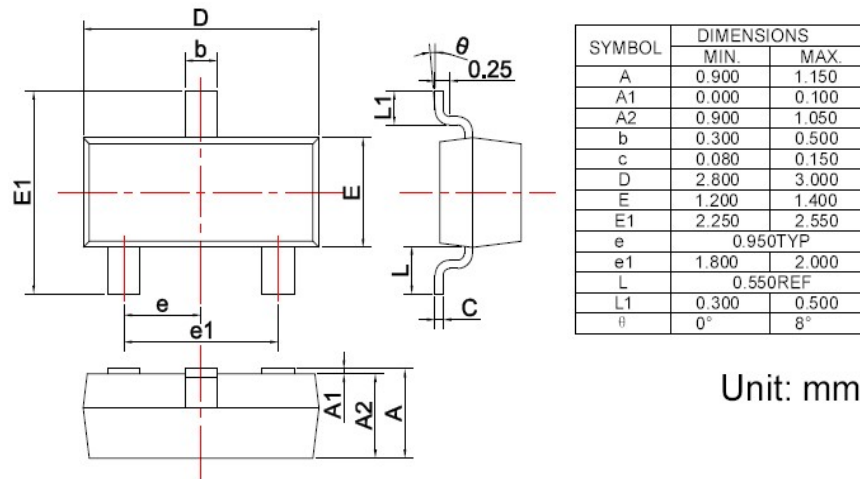


I_S — V_{SD}

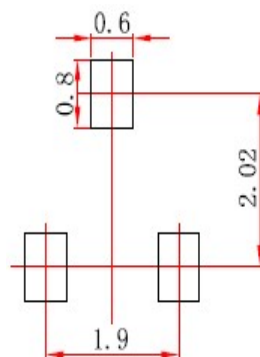


Threshold Voltage



SOT-23 PACKAGE OUTLINE Plastic surface mounted package

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: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

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