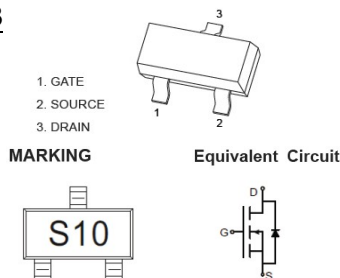


V(BR)DSS	RDS(ON)MAX	ID
60V	105mΩ@10V 125mΩ@4.5V	3A

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}	60	V
Gate-Source Voltage	V _{GS}	±20	V
Continuous Drain Current	I _D	3	A
Pulsed Drain Current(note1)	I _{DM}	10	
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(note2)	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.)

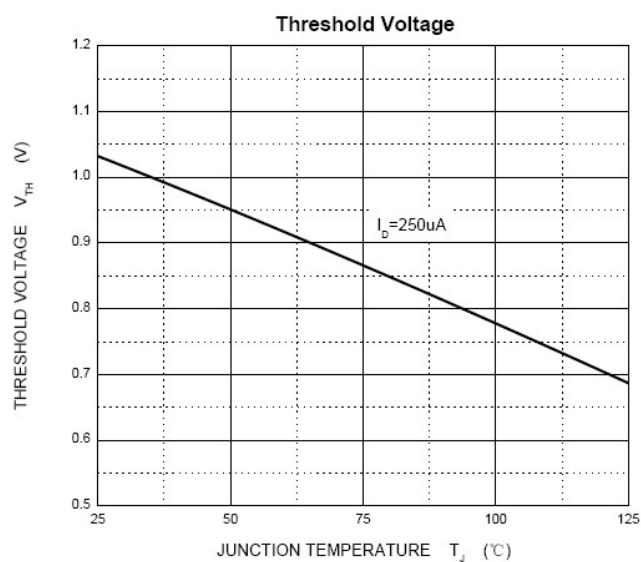
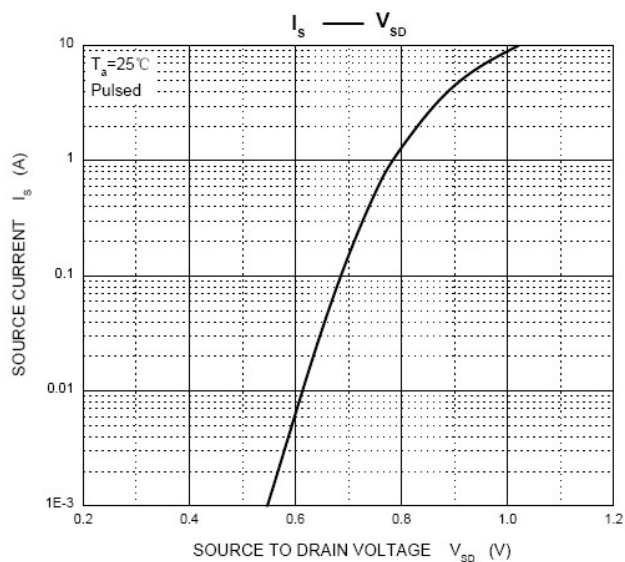
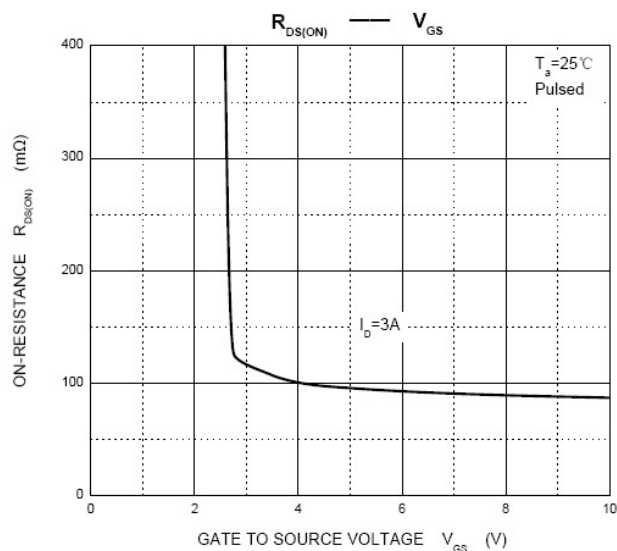
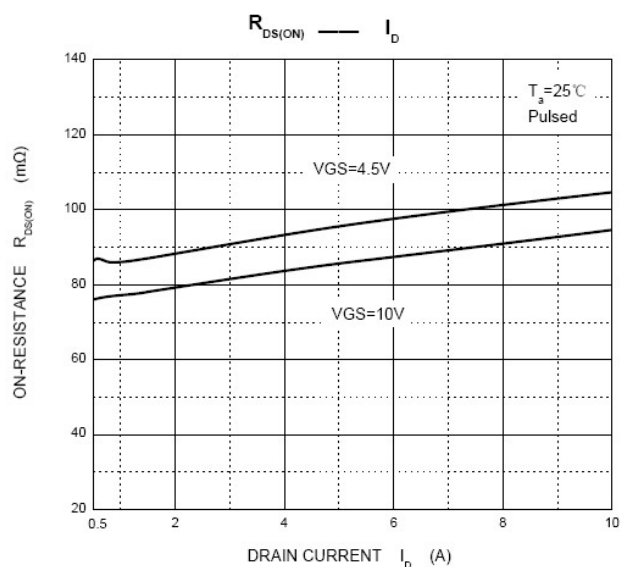
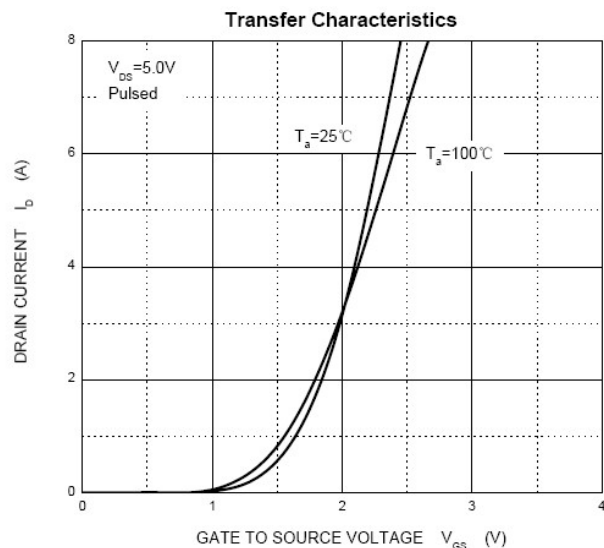
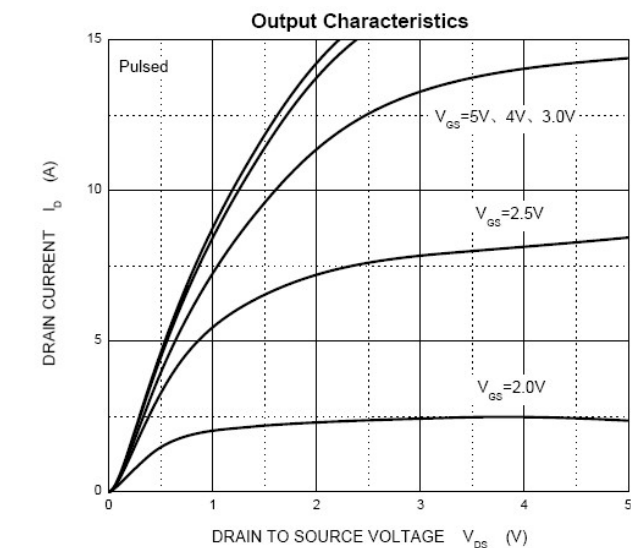
参数 Parameter	符号 Symbols	测试条件 Test Condition	界限 Limits			单位 Unit
			Min	Typ	Max	
Static						
Drain-Source Breakdown Voltage	V(BR)DSS	VGS=0V, ID=250uA	60			V
Gate-Threshold voltage(note3)	V GS (th)	VDS=VGS, ID=250uA	0.5		2	V
Gate-body Leakage	IGSS	VDS=0V, VGS=±20V			±100	nA
Zero Gate Voltage Drain current	IDSS	VDS=60V, VGS=0V			1	uA
Drain-Source On-Resistance (note3)	RDS(ON)	VGS=10V, ID=3A			105	mΩ
		VGS=4.5V, IC=3A			125	
Forward trans conductance(note3)	gfs	VDS=15V, ID=2A	1.4			S
Diode forward voltage(note3)	VSD	IS=3A, VGS=0V			1.2	V
Dynamic Characteristics(note4)						
Input capacitance	Ciss	VDS=30V, VGS=0V,f=1MHz		247		pF
Output capacitance	Coss			34		
Reverse Transfer capacitance	Crss			19.5		
Total gate charge	Qg	VDS=30V, VGS=4.5V,ID=3A		6		nC
Gate-source charge	Qgs			1		
Gate-drain charge	Qgd			1.3		
Switching (b)						
Turn-on Time	td(on)	VDD=30V, RL=1Ω, VGS=10V, ID≈1.5A, RG=6Ω		6		ns
Rise time	tr			15		
Turn-off Time	td(off)			15		
Fall time	tf			10		

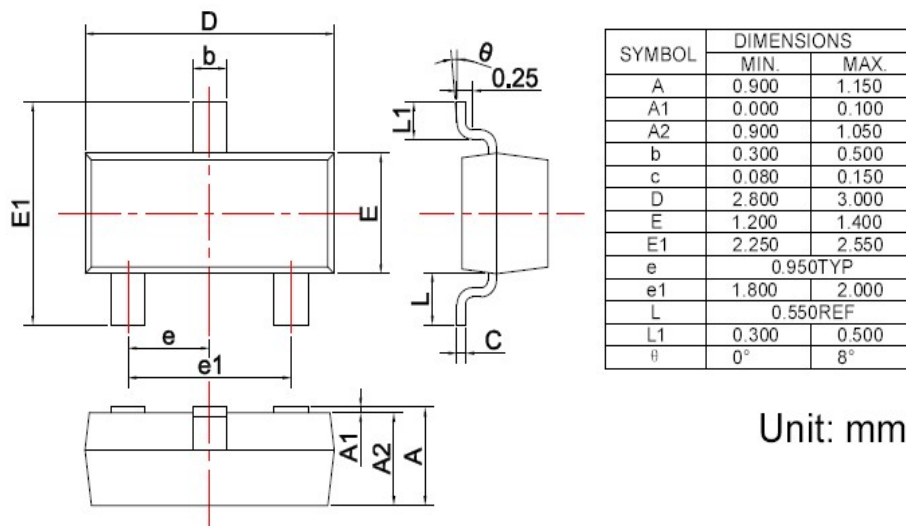
Notes: 1.Repetitive rating: Pulse width limited by junction temperature.

2.Surface mounted on FR4 board, t≤10s.

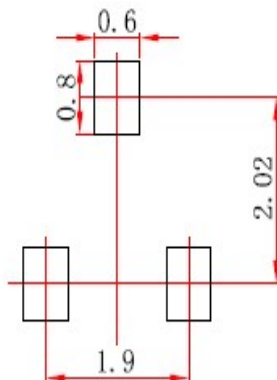
3. Pulse Test: Pulse Width ≤300us, Duty Cycles≤2%.

Typical Characteristics



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: ± 0.05 mm.
3. The pad layout is for reference purposes only.

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