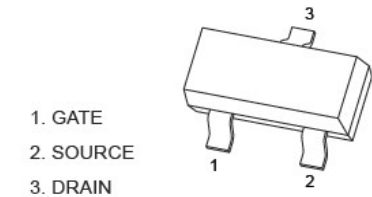
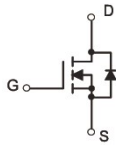


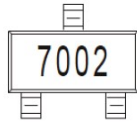
V(BR)DSS	RDS(ON)MAX	ID
60V	5Ω@10V	115mA
	7Ω@5V	

SOT-23

Equivalent Circuit



MARKING

**SOT-23 贴片塑封场效应管**
SOT-23 Plastic-Encapsulate MOSFET**特征 Features**

- High density cell design for low $R_{DS(ON)}$.
- Voltage controlled small signal switch.
- Rugged and reliable.
- High saturation current capability.
- 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($T_A = 25^\circ\text{C}$ 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	115	mA
Power Dissipation	P_D	225	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-50-+150	$^\circ\text{C}$
Thermal Resistance From Junction to Ambient	$R_{\theta JA}$	556	$^\circ\text{C/W}$

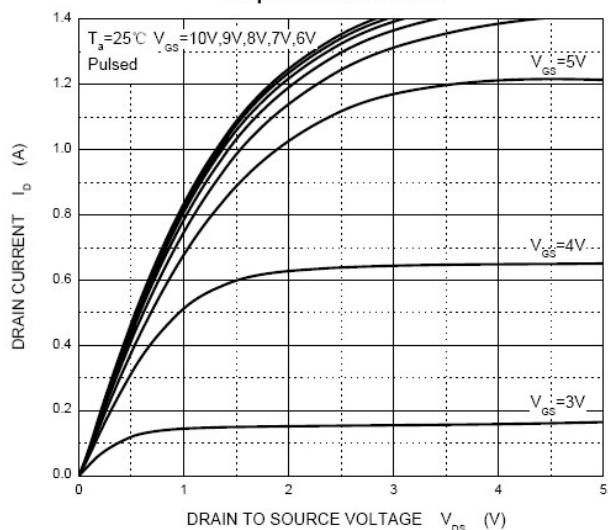
电特性 ($T_A = 25^\circ\text{C}$ 除非另有规定)**Electrical Characteristics** (Ratings at 25°C ambient temperature unless otherwise specified.)

参数 Parameter	符号 Symbols	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
Drain-Source Breakdown Voltage	V(BR)DSS	VGS=0V, ID=250uA	60		V
Gate-Threshold voltage	Vth(GS)	VDS=VGS, ID=250uA	1	2.5	V
Gate-body Leakage	IGSS	VDS=0V, VGS=±20V		±10	uA
Zero Gate Voltage Drain current	IDSS	VDS=60V, VGS=0V		80	nA
On-state Drain current	ID(ON)	VGS=10V, VDS=7V	500		mA
Drain-Source On-Resistance	RDS(ON)	VGS=10V, ID=500mA		5	Ω
		VGS=5V, IC=50mA		7	
Forward Trans conductance	gfs	VDS=10V, ID=200mA	80		ms
Drain-source on-voltage	VDS(ON)	VGS=10V, ID=500mA		3.75	V
		VGS=5V, ID=50mA		0.375	V
Diode Forward voltage	VSD	IS=115mA, VGS=0V	0.55	1.20	V
Input capacitance*	Ciss	VDS=25V, VGS=0V,f=1MHz		50	pF
Output capacitance*	Coss			25	
Reverse Transfer capacitance*	Crss			5	
SWITCHING TIME					
Turn-on Time*	td(on)	VDD=25V, RL=50Ω, ID=500mA, VGEN=10V, RG=25Ω		20	ns
Turn-off Time*	td(off)			40	

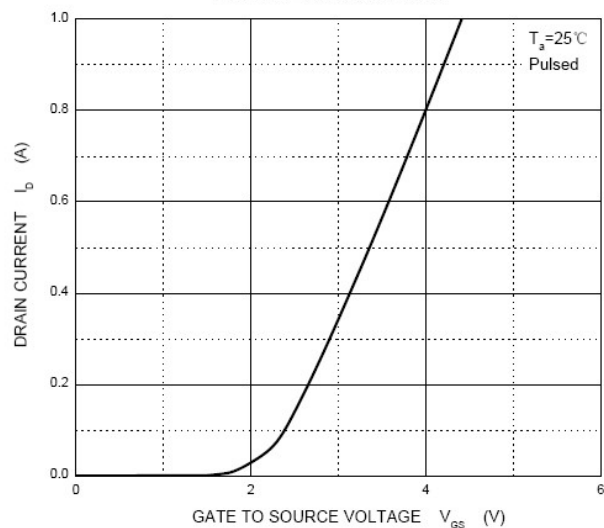
* These parameters have on way to verify.

Typical characteristics

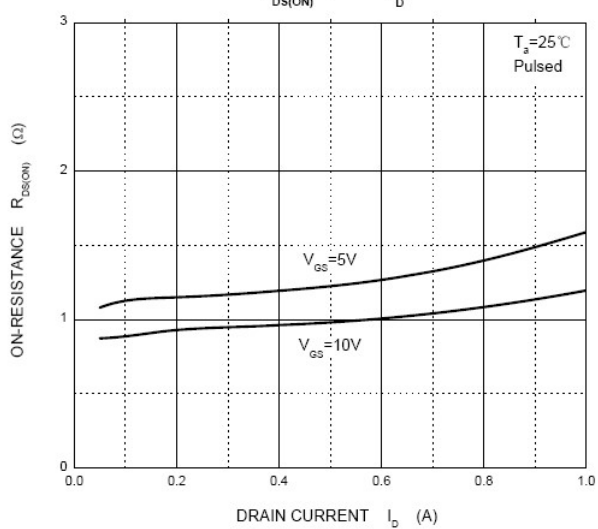
Output Characteristics



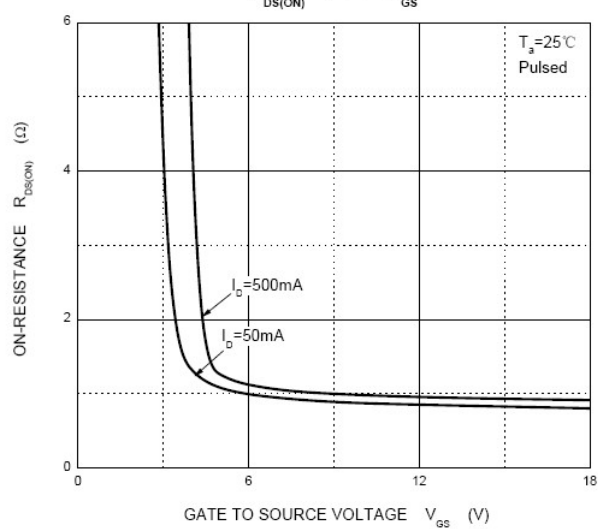
Transfer Characteristics



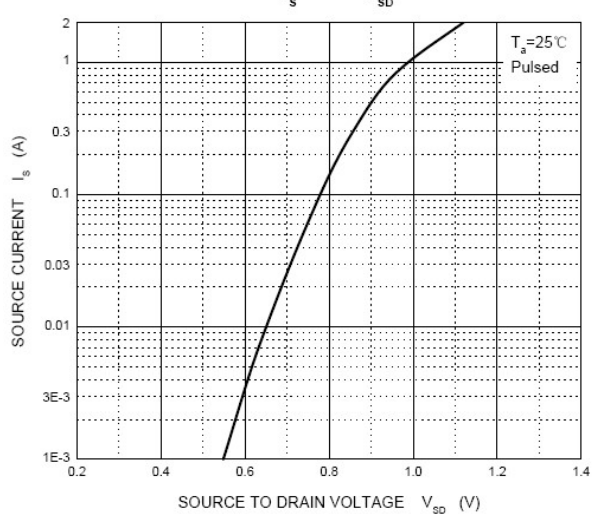
$R_{DS(ON)}$ — I_D



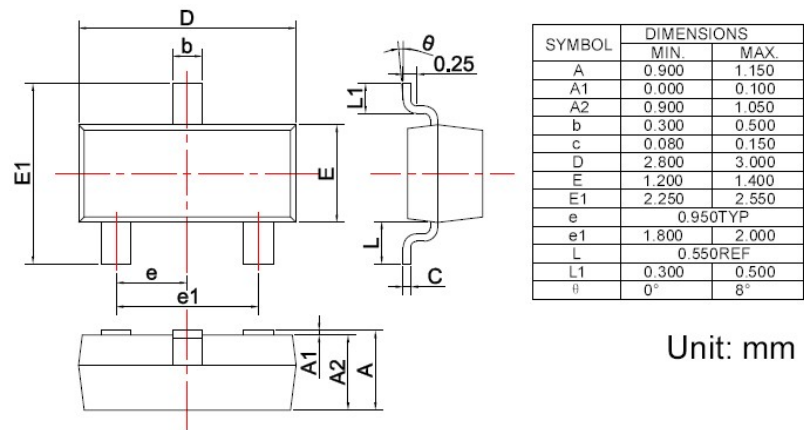
$R_{DS(ON)}$ — V_{GS}



I_S — V_{SD}



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

