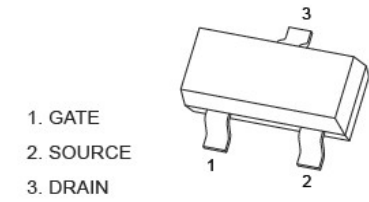


<b>V(BR)DSS</b>	<b>RDS(ON)MAX</b>	<b>ID</b>
60V	5Ω@10V	115mA
	7Ω@5V	

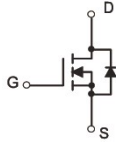
**SOT-23 贴片塑封场效应管**

**SOT-23 Plastic-Encapsulate MOSFET**

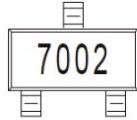
**SOT-23**



Equivalent Circuit



MARKING



**特征 Features**

- High density cell design for low RDS(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(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>	60	V
Gate-Source Voltage	V <sub>GS</sub>	±20	V
Continuous Drain Current	I <sub>D</sub>	115	mA
Power Dissipation	P <sub>D</sub>	225	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>	556	°C/W

电特性 (TA = 25°C 除非另有规定)

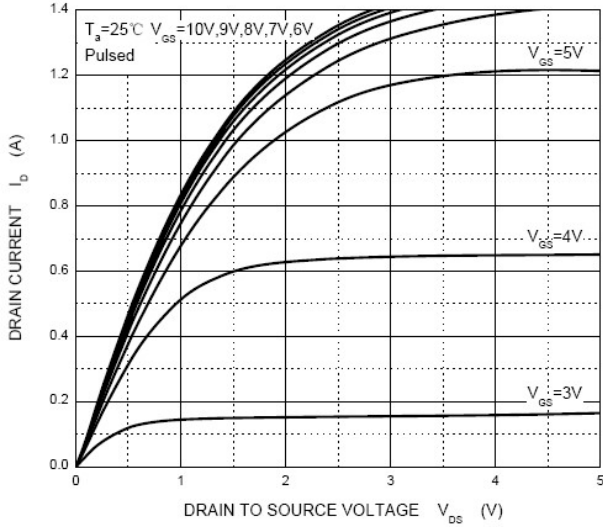
**Electrical Characteristics** (Ratings at 25°C ambient temperature unless otherwise specified).

参数 Parameter	符号 Symbols	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
Drain-Source Breakdown Voltage	V(BR)DSS	VGS=0V, ID=250uA	60		V
Gate-Threshold voltage	V <sub>th(GS)</sub>	VDS=VGS, ID=250uA	1	2.5	V
Gate-body Leakage	I <sub>GSS</sub>	VDS=0V, VGS=±20V		±10	uA
Zero Gate Voltage Drain current	I <sub>DSS</sub>	VDS=60V, VGS=0V		80	nA
On-state Drain current	I <sub>D(ON)</sub>	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	g <sub>fs</sub>	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	
Diode Forward voltage	VSD	IS=115mA, VGS=0V	0.55	1.20	V
Input capacitance*	C <sub>iss</sub>	VDS=25V, VGS=0V, f=1MHz		50	pF
Output capacitance*	C <sub>oss</sub>			25	
Reverse Transfer capacitance*	C <sub>rss</sub>			5	
<b>SWITCHING TIME</b>					
Turn-on Time*	td(on)	VDD=25V, RL=50Ω, ID=500mA, VGEN=10V, RG=25Ω		20	ns
Turn-off Time*	td(off)			40	

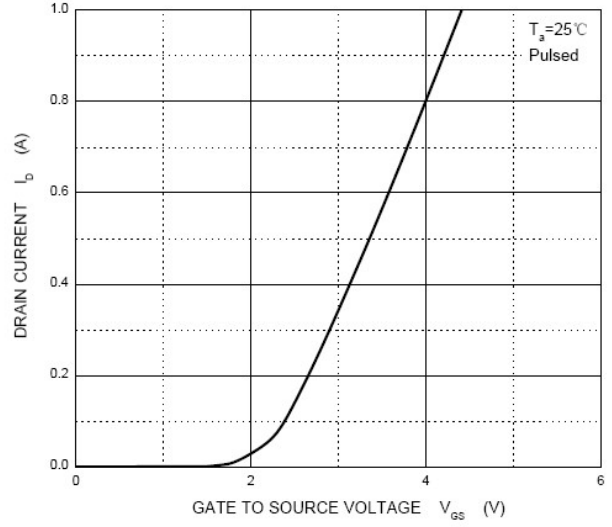
\* These parameters have on way to verify.

Typical characteristics

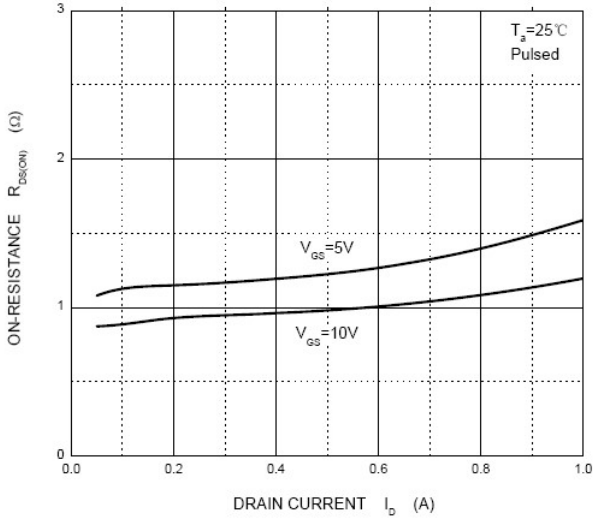
Output Characteristics



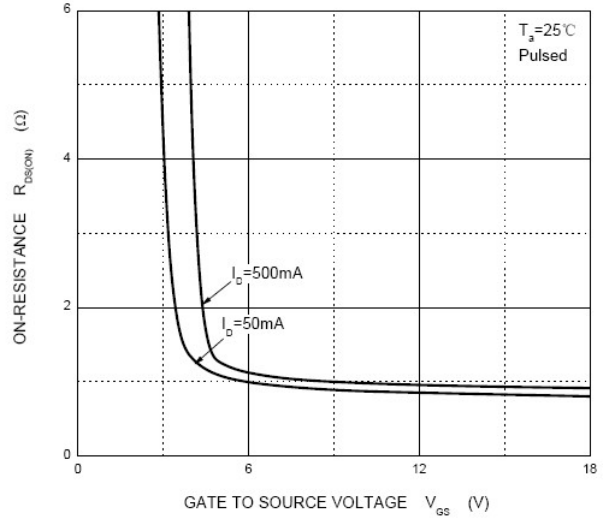
Transfer Characteristics



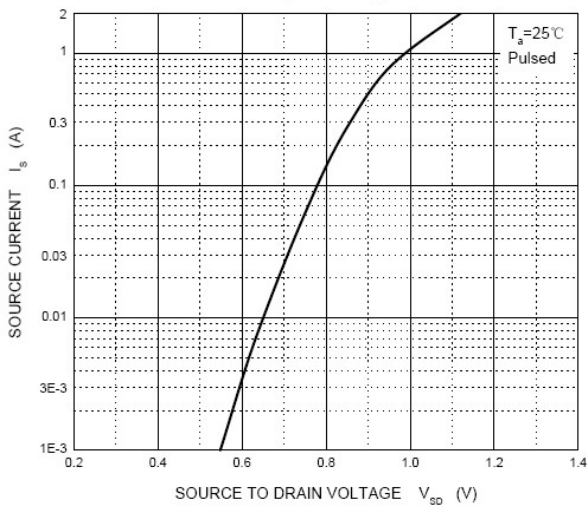
$R_{DS(ON)}$  —  $I_D$



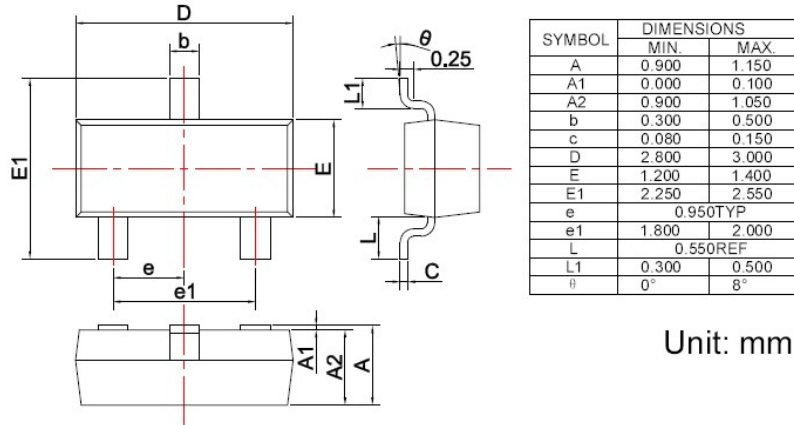
$R_{DS(ON)}$  —  $V_{GS}$



$I_S$  —  $V_{SD}$

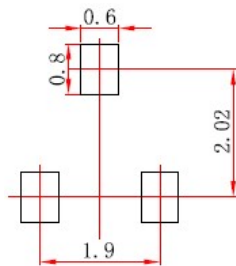


SOT-23 PACKAGE OUTLINE Plastic surface mounted package



焊盘设计参考 Precautions: PCB Design

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



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