

描述 / Descriptions

SOT-23 塑封封装 N 沟道 MOS 场效应管。N-CHANNEL MOSFET in a SOT-23 Plastic Package.

特征 / Features

灵敏的控制级触发电流和很低的维持电流。静电保护达 1KV.

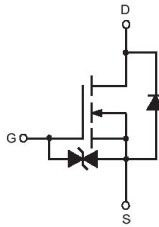
Sensitive gate trigger current and Low Holding current.ESD protected up to 1KV.

用途 / Applications

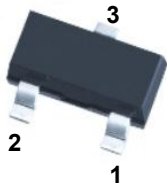
用作一般的开关和相位控制。

Intended for use in general purpose switching and phase control applications.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN1 : S

PIN 2 : G

PIN 3 : D

印章代码 / Marking

Marking	H702
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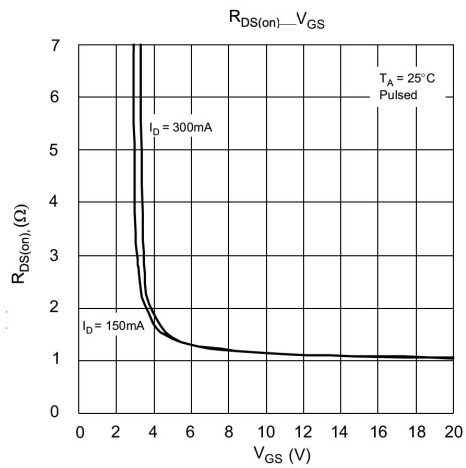
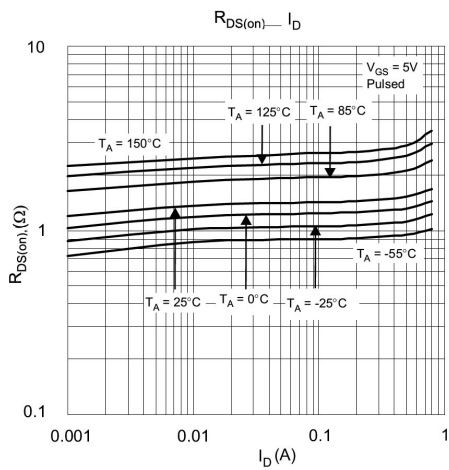
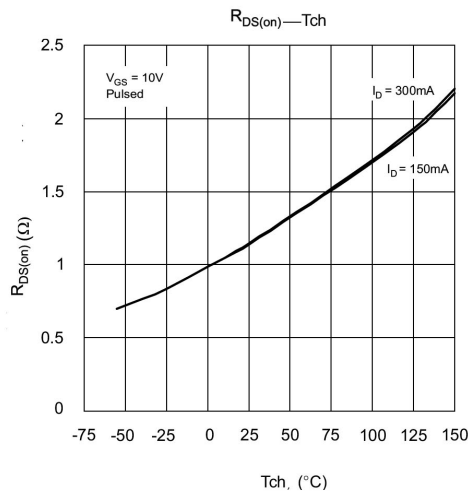
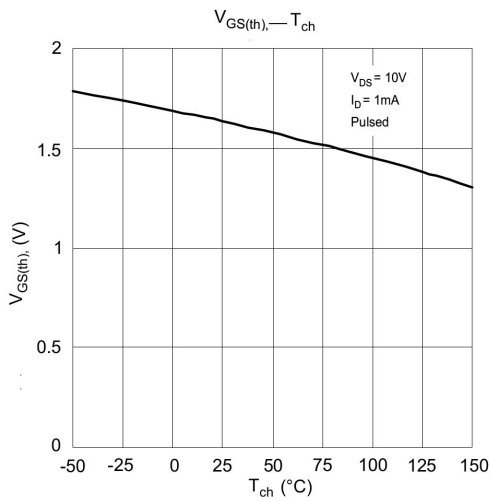
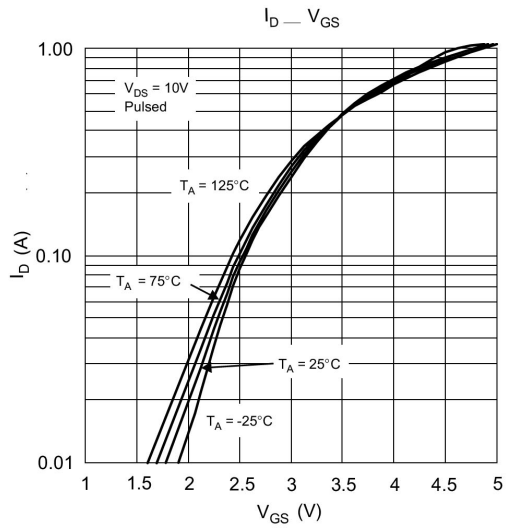
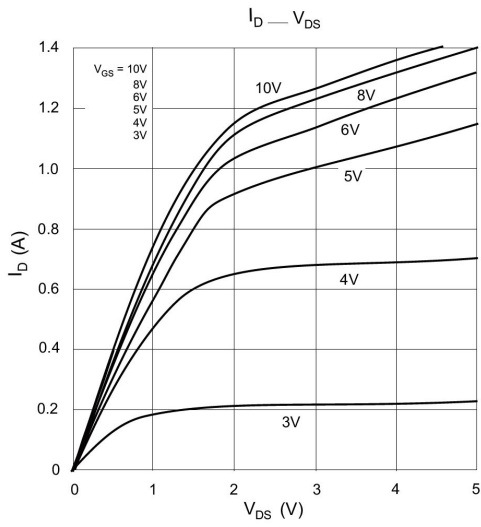
极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Drain-Source Voltage	V_{DSS}	60	V
Drain-Gate Voltage	V_{DGR}	60	V
Maximum Drain Current - Continuous	I_D	300	mA
Maximum Drain Current - Pulsed	I_{DM}	800	mA
Gate-Source Voltage - Continuous	V_{GSS}	± 20	V
Maximum Power Dissipation	P_D	350	mW
Storage Temperature Range	T_{stg}	-55~150	°C

电性能参数 / Electrical Characteristics(Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit				
Drain-Source Breakdown Voltage	V_{DSS}	$V_{GS}=0$ $I_D=10\mu A$	60			V				
Zero Gate Voltage Drain Current	I_{DSS}	$V_{GS}=0$ $V_{DS}=60V$			1.0	μA				
Gate-Source Leakage	I_{GSS}	$V_{DS}=0V$ $V_{GS}=\pm 20V$			± 10	μA				
Static Drain-Source On-Resistance	$R_{DS(on)(1)}$	$V_{GS}=10V$ $I_D=0.5A$			5	Ω				
	$R_{DS(on)(2)}$	$V_{GS}=5V$ $I_D=0.05A$			5.5	Ω				
Forward Transconductance	V_{SD}	$V_{GS}=0V$ $I_S=250mA$			1.5	V				
Drain-Source Diode Forward Voltage	$V_{GS(th)}$	$V_{DS}=10V$ $I_D=1mA$	1.0	1.6	2.5	V				
Forward Transfer Admittance	Y_{fs}	$V_{DS}=10V$ $I_D=0.2A$	80			mS				
Drain-Source On-Voltage	$V_{DS(on)(1)}$	$V_{GS}=10V$ $I_D=500mA$			2.5	V				
	$V_{DS(on)(2)}$	$V_{GS}=5.0V$ $I_D=50mA$			0.275	V				
Turn-On Time	$t_{d(on)}$	$V_{DD}=25V$ $R_G=25\Omega$ $V_{gen}=10V$			20	ns				
Turn-Off Time	$t_{d(off)}$								40	ns
Input Capacitance	C_{iss}	$V_{ds}=25V$ $f=1MHz$	$V_{GS}=0V$		50	pF				
Output Capacitance	C_{oss}								25	pF
Reverse Transfer Capacitance	C_{rss}								5	pF

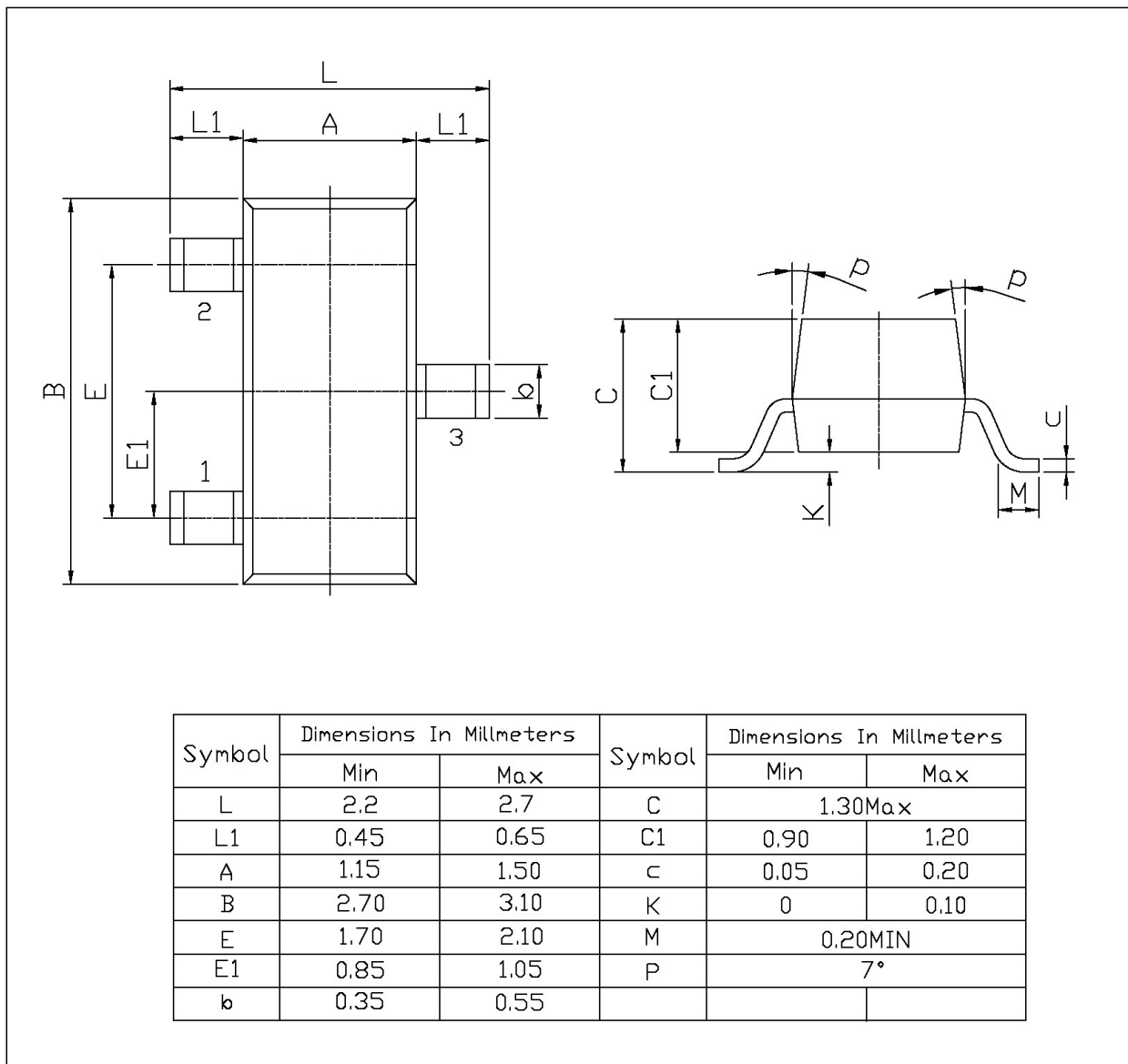
电参数曲线图 / Electrical Characteristic Curve



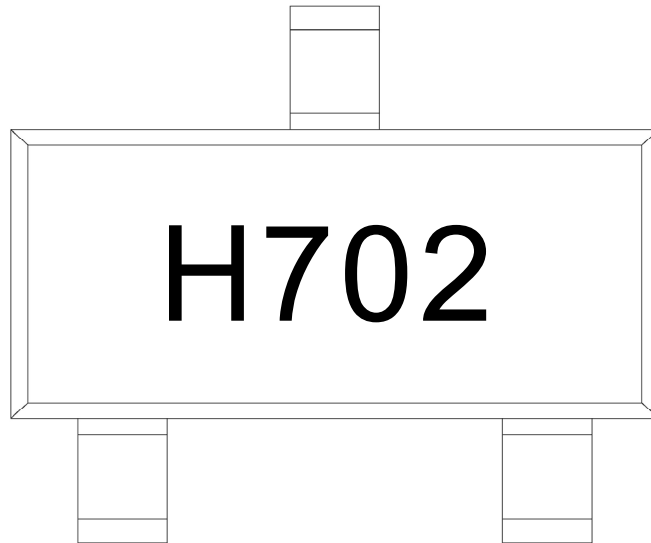
外形尺寸图 / Package Dimensions

SOT-23

单位: mm



印章说明 / Marking Instructions



说明：

H： 为公司代码

702： 为型号代码

Note:

H: Company Code.

702: Product Type.

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：

- 1、预热温度 25~150°C，时间 60~90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2~10°C/sec.

Note:

- 1.Preheating:25~150°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

包装规格 / Packaging SPEC.

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOT-23	3,000	10	30,000	8	240,000	7" ×8	180×120×180	385×257×392

使用说明 / Notices