

描述 / Descriptions

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

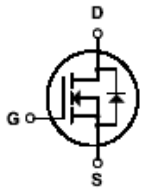
特征 / Features

灵敏的控制级触发电流和很低的维持电流。
Sensitive gate trigger current and Low Holding current.

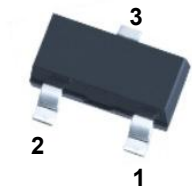
用途 / Applications

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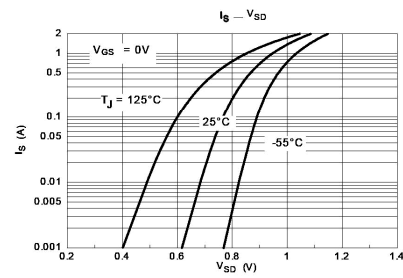
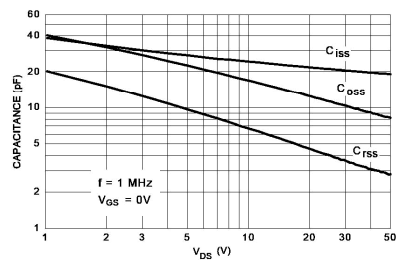
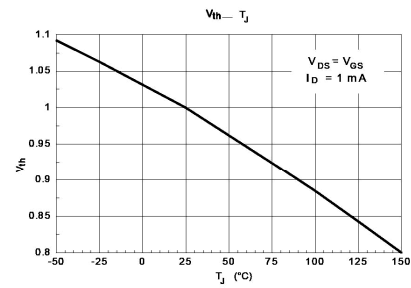
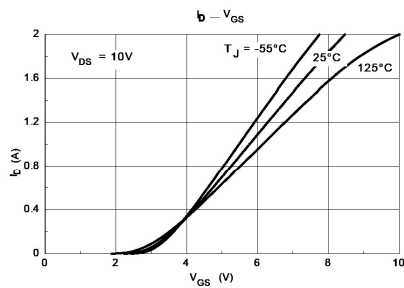
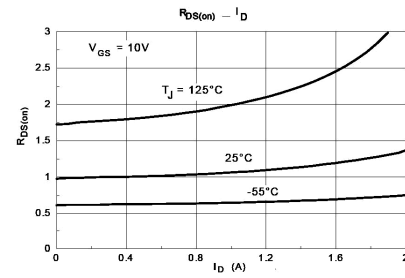
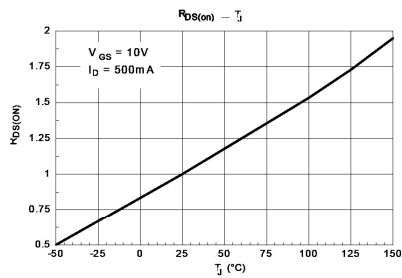
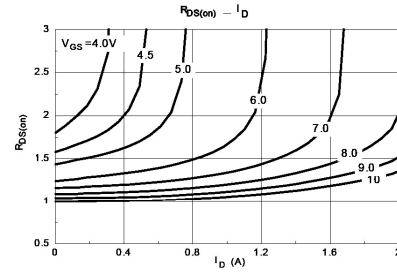
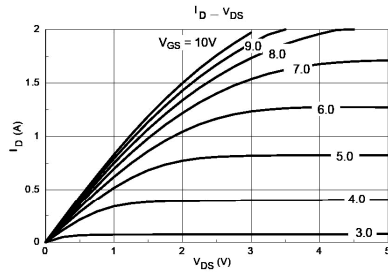
极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Drain-Source Voltage	V_{DSS}	60	V
Gate-Source Voltage	V_{DGR}	60	V
Drain Current - Continuous	$I_D(T_C=25^{\circ}C)$	280	mA
Drain Current- Pulsed	I_{DM}	1500	mA
Gate Threshold Voltage	V_{GS}	± 20	V
Gate Threshold Voltage	V_{GSM}	± 40	V
Total Power Dissipation	P_D	300	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	$V_{(BR)DSS}$	$V_{GS}=0$ $I_D=10\mu A$	60			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{GS}=0$ $V_{DS}=60V$			1.0	μA
Gate-Body Leakage.	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 100	nA
Static Drain-Source On-Resistance	$R_{DS(on)1}$	$V_{GS}=10V$ $I_D=0.5A$		1.2	2.0	Ω
	$R_{DS(on)2}$	$V_{GS}=5V$ $I_D=0.05A$		1.7	3.0	Ω
Forward Transconductance	g_{FS}	$V_{DS} \geq 2.0V_{DS(on)}$ $I_D=200mA$	80	320		mS
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_S=400mA$		0.88	1.2	V
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	1.0	2.1	2.5	V
On-State Drain Current	$I_{D(on)}$	$V_{DS}=10V$ $V_{DS} \geq 2.0V_{DS(on)}$	500	2700		mA
Drain-Source On-Voltage	$V_{DS(on)(1)}$	$V_{GS}=10V$ $I_D=500mA$		0.6	1.0	V
	$V_{DS(on)(2)}$	$V_{GS}=5.0V$ $I_D=50mA$		0.09	0.15	V
Turn-On Delay Time	$t_{d(on)}$	$V_{DD}=30V$ $I_D=200mA$ $R_{GEN}=25\Omega$ $R_L=150\Omega$			20	ns
Turn-Off Delay Time	$t_{d(off)}$	$V_{GS}=10V$			20	ns

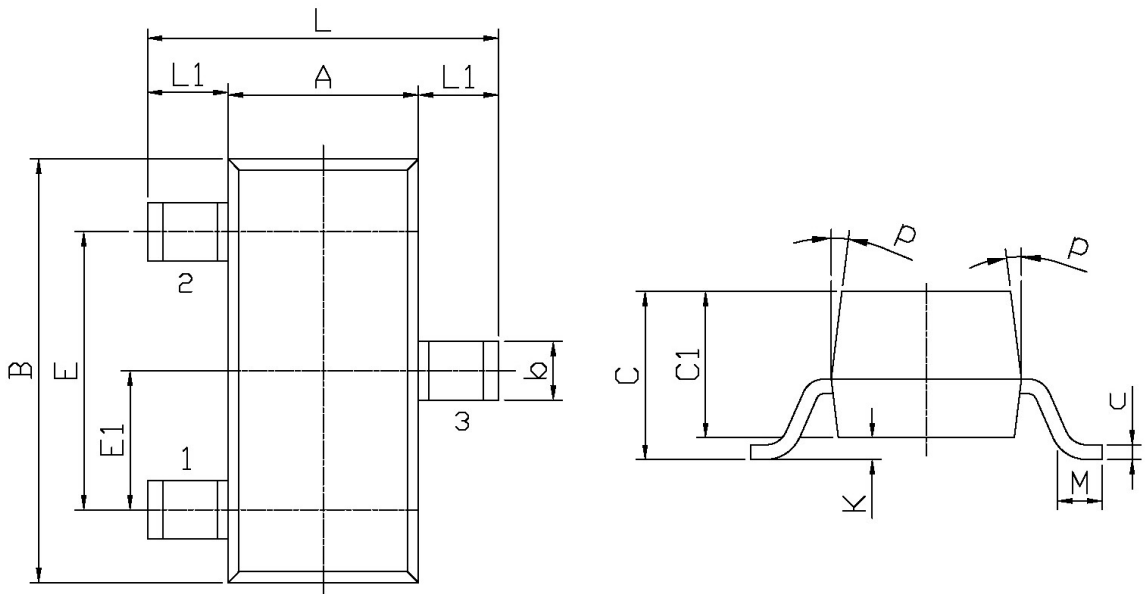
电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

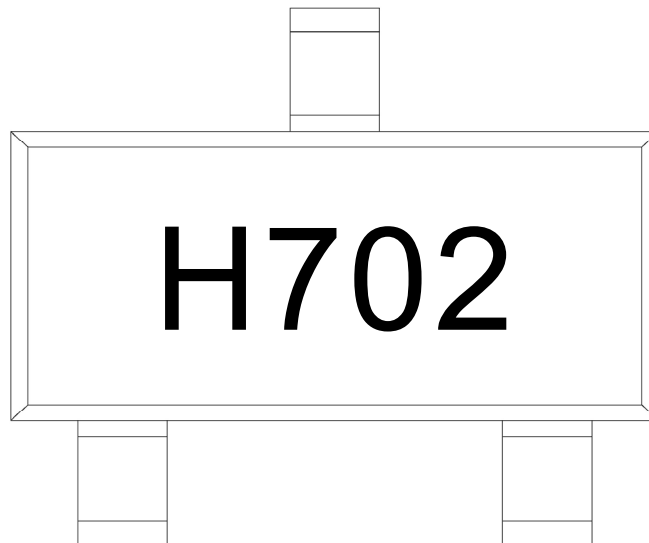
SOT-23

单位: mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
L	2.2	2.7	C	1.30Max	
L1	0.45	0.65	C1	0.90	1.20
A	1.15	1.50	c	0.05	0.20
B	2.70	3.10	K	0	0.10
E	1.70	2.10	M	0.20MIN	
E1	0.85	1.05	P	7°	
b	0.35	0.55			

印章说明 / Marking Instructions



说明：

H: 为公司代码

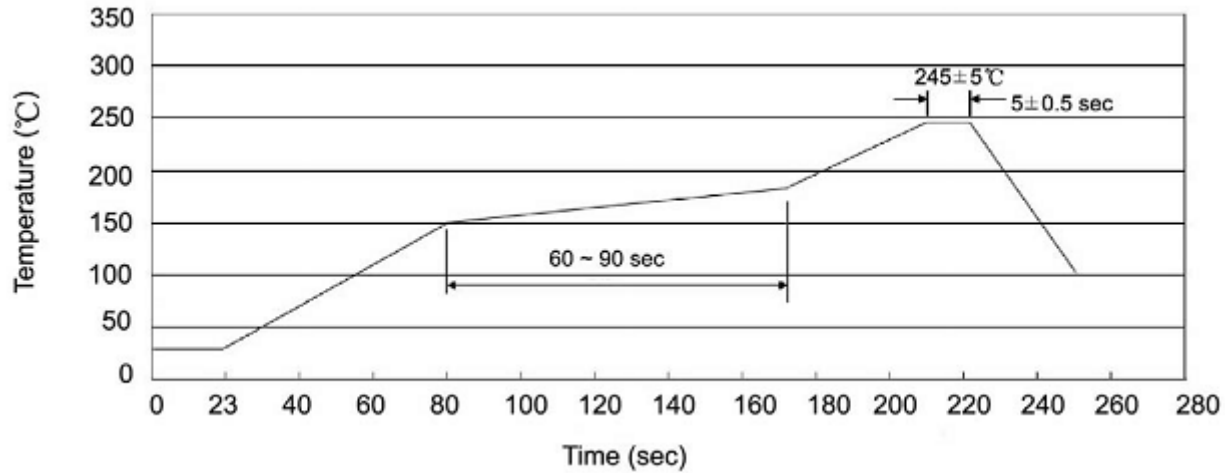
702： 为型号代码

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" x8	180×120×180	385×257×392

使用说明 / Notices