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.

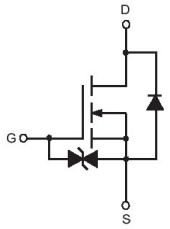
特征 / Features

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.

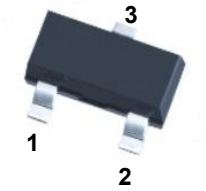
用途 / Applications

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：G　　PIN 2：S　　PIN 3：D

印章代码 / Marking

Marking	H702

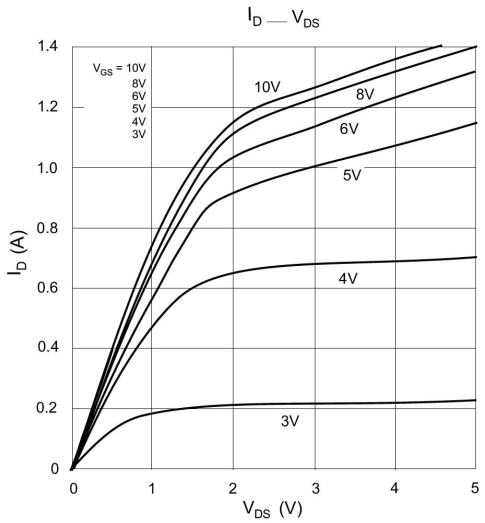
极限参数 / Absolute Maximum Ratings(Ta=25℃)

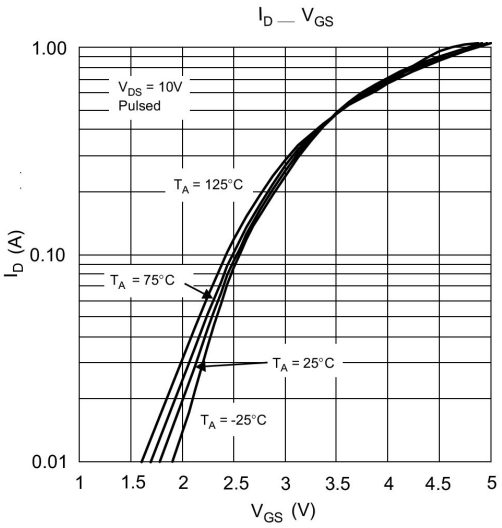
参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Drain-Source Voltage	V_{DSS}	60	V
Drain-Gate Voltage	V_{DGR}	60	V
Maximum Drain Current - Continuous	I_D	300	mA
Maximum Drain Current - Pulsed	I_{DM}	800	mA
Gate-Source Voltage - Continuous	V_{GSS}	±20	V
Maximum Power Dissipation	P_D	350	mW
Storage Temperature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

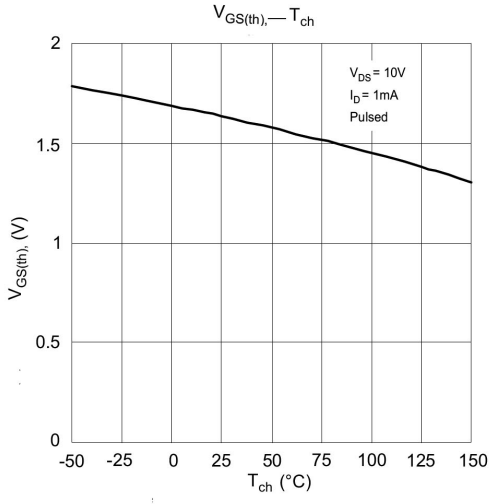
电性能参数 / Electrical Characteristics(Ta=25℃)

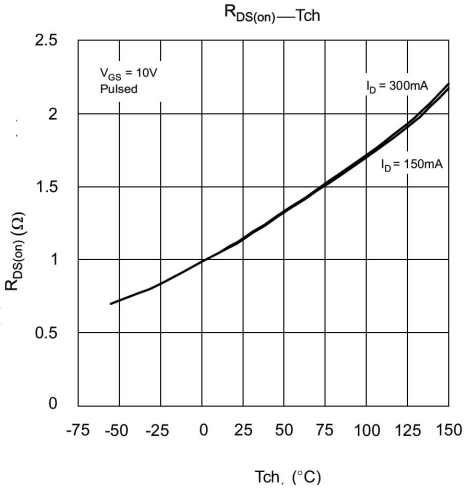
参数 Parameter	符号 Symbol	测试条件 Test Conditions		最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Drain–Source Breakdown Voltage	V_{DSS}	V_{GS}=0	I_D=10μA	60			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{GS}=0	V_{DS}=60V			1.0	μA
Gate-Source Leakage	I_{GSS}	V_{DS}=0V	V_{GS}=±20V			±10	μA
Static Drain-Source On-Resistance	$R_{DS(on)(1)}$	V_{GS}=10V	I_D=0.5A			5	Ω
	$R_{DS(on)(2)}$	V_{GS}=5V	I_D=0.05A			5.5	Ω
Diode Forward Voltage	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 Transconductance	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=25Ω V_{gen}=10V	I_D=500 mA R_L=25Ω			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

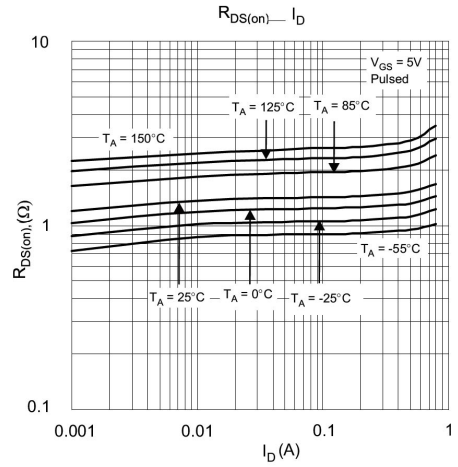
电参数曲线图 / Electrical Characteristic Curve

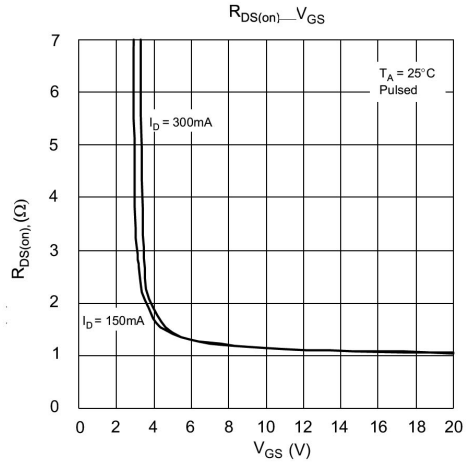








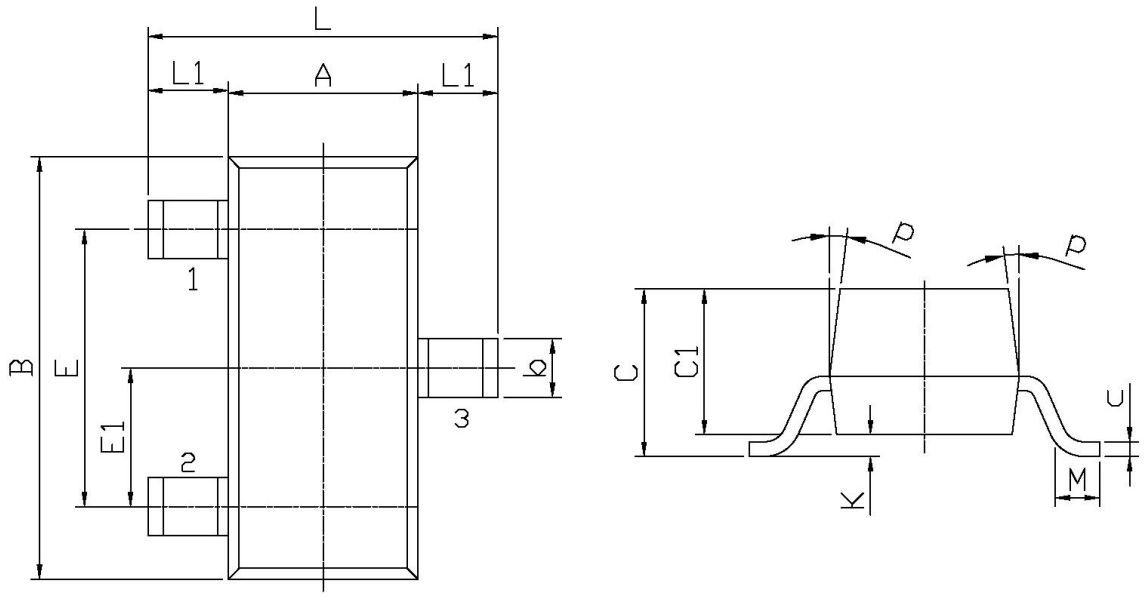




外形尺寸图 / Package Dimensions

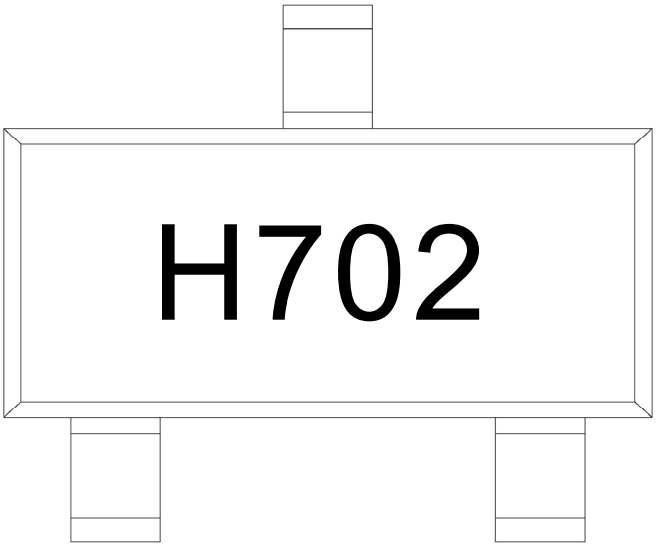
SOT-23

单位：mm



Symbol	Dimensions In Millmeters		Symbol	Dimensions In Millmeters	
	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

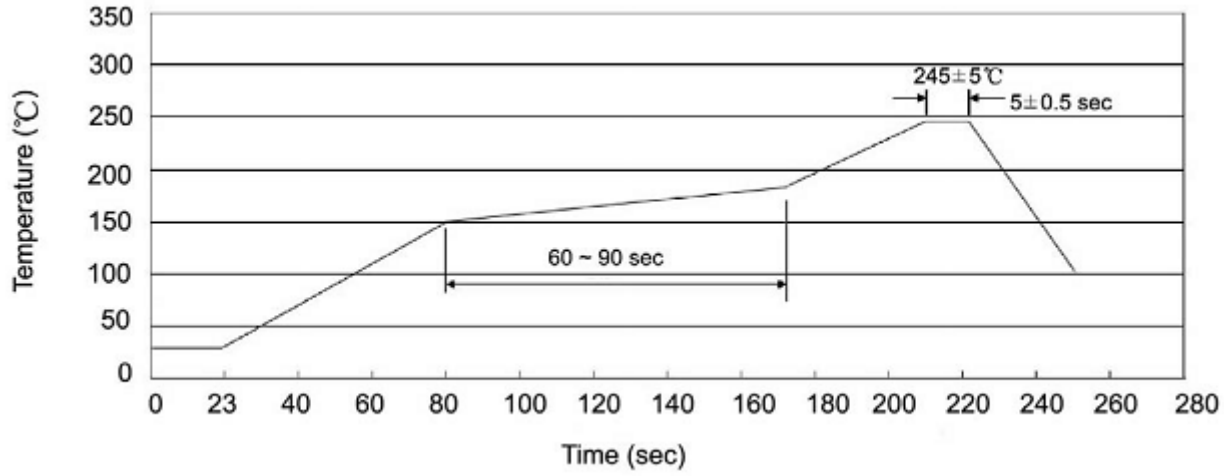
702： 为型号代码

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℃，时间 60～90sec;

2、峰值温度 245±5℃，时间持续为 5±0.5sec;

3、焊接制程冷却速度为 2～10℃/sec.

Note:

1.Preheating:25~150℃, Time:60~90sec.

2.Peak Temp.:245±5℃, Duration:5±0.5sec.

3. Cooling Speed: 2~10℃/sec.

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

温度：260±5℃　　时间：10±1 sec.　　Temp.:260±5℃　　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	6	180,000	7″ ×8	180×120×180	390×385×205

使用说明 / Notices