

### 描述 / Descriptions

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

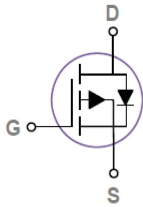
### 特征 / Features

沟道技术，功率场效应晶体管。无卤产品。  
Trench FET@ Power MOSFET .Halogen free product..

### 用途 / Applications

主要用于显示屏驱动。  
Primarily the display screen drive applications.

### 内部等效电路 / Equivalent Circuit



### 引脚排列 / Pinning



PIN 1 : G      PIN 2 : S      PIN 3 : D

### 印章代码 / Marking

Marking	H305
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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	$V_{DSS}$	-20	V
Gate-Source Voltage	$V_{GSS}$	$\pm 12$	V
Drain Current – Continuous <sup>(1)</sup>	$I_D$	-4.3	A
Drain Current – Continuous	$I_D(T_A=70^\circ C)$	-2.8	A
Pulsed Drain Current	$I_{DM}$	-16	A
Continuous Source Current	$I_S$	1.25	A
Power Dissipation	$P_D$	1.25	W
Power Dissipation	$P_D(T_A=70^\circ C)$	0.80	W
Storage Temperature Range	$T_{stg}$	-55 ~ 150	°C

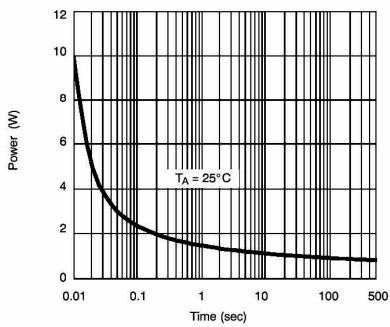
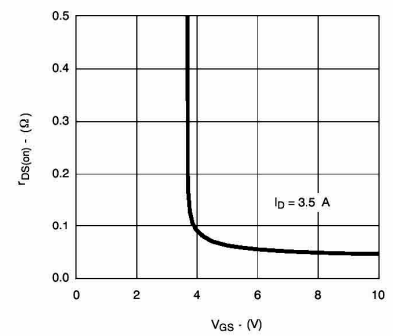
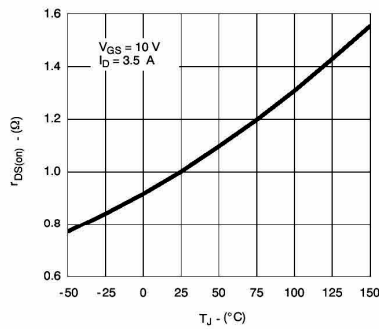
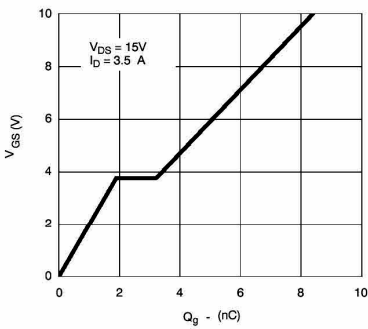
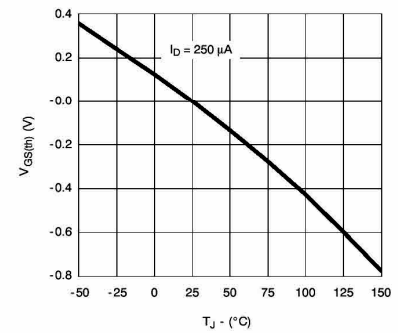
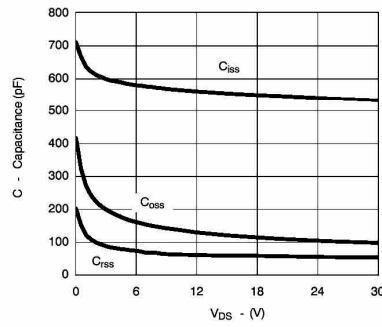
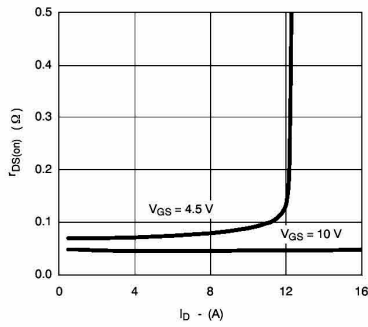
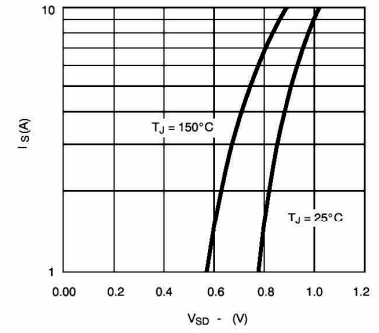
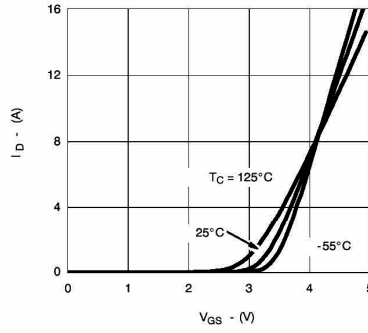
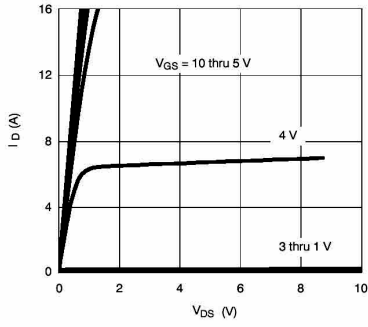
Notes:

1. Device mounted on an FR4 PCB, single-sided copper, tin-plated, mounting pad for drain 6 cm<sup>2</sup>.

**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	$V_{(BR)DSS}$	$V_{GS}=0V$ $I_D=250\mu A$	-20			V
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	-0.4		-1.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=3.5A$			30	mΩ
		$V_{GS}=4.5V$ $I_D=2.8A$			40	mΩ
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=20V$ $V_{GS}=0V$			1	μA
		$V_{DS}=30V$ $V_{GS}=0V$ $T_J=55^\circ C$			30	μA
Gate-Body Leakage.	$I_{GSS}$	$V_{GS}=\pm 12V$ $V_{DS}=0V$			$\pm 0.1$	μA
State Drain Current	$I_D$	$V_{DS}\geq 4.5V$ $V_{GS}=10V$	-6			A
		$V_{DS}\geq 4.5V$ $V_{GS}=4.5V$	-3			A
Drain-Source Diode Forward Voltage	$V_{SD}$	$I_S=1.25A$ $V_{GS}=0V$		-0.8	-1.2	V
Forward Transconductance	$g_{FS}$	$V_{DS}=4.5V$ $I_D=3.5A$		6.5		S
Gate Resistance	$R_g$		0.5		2.4	Ω
Input Capacitance	$C_{iss}$	$V_{DS}=15V$ $V_{GS}=0V$ $f=1.0MHz$		415		pF
Output Capacitance	$C_{oss}$			223		
Reverse Transfer Capacitance	$C_{rss}$			84		
Turn-On Delay Time	$t_{d(on)}$	$V_{DD}=15V$ $R_L=15\Omega$ $I_D\approx 1.0A$ $V_{GEN}=10V$ $R_G=6.0\Omega$		13	25	ns
Turn-On Rise Time	$t_r$			36	60	
Turn-Off Delay Time	$t_{d(off)}$			42	70	
Turn-Off Fall Time	$t_f$			34	60	

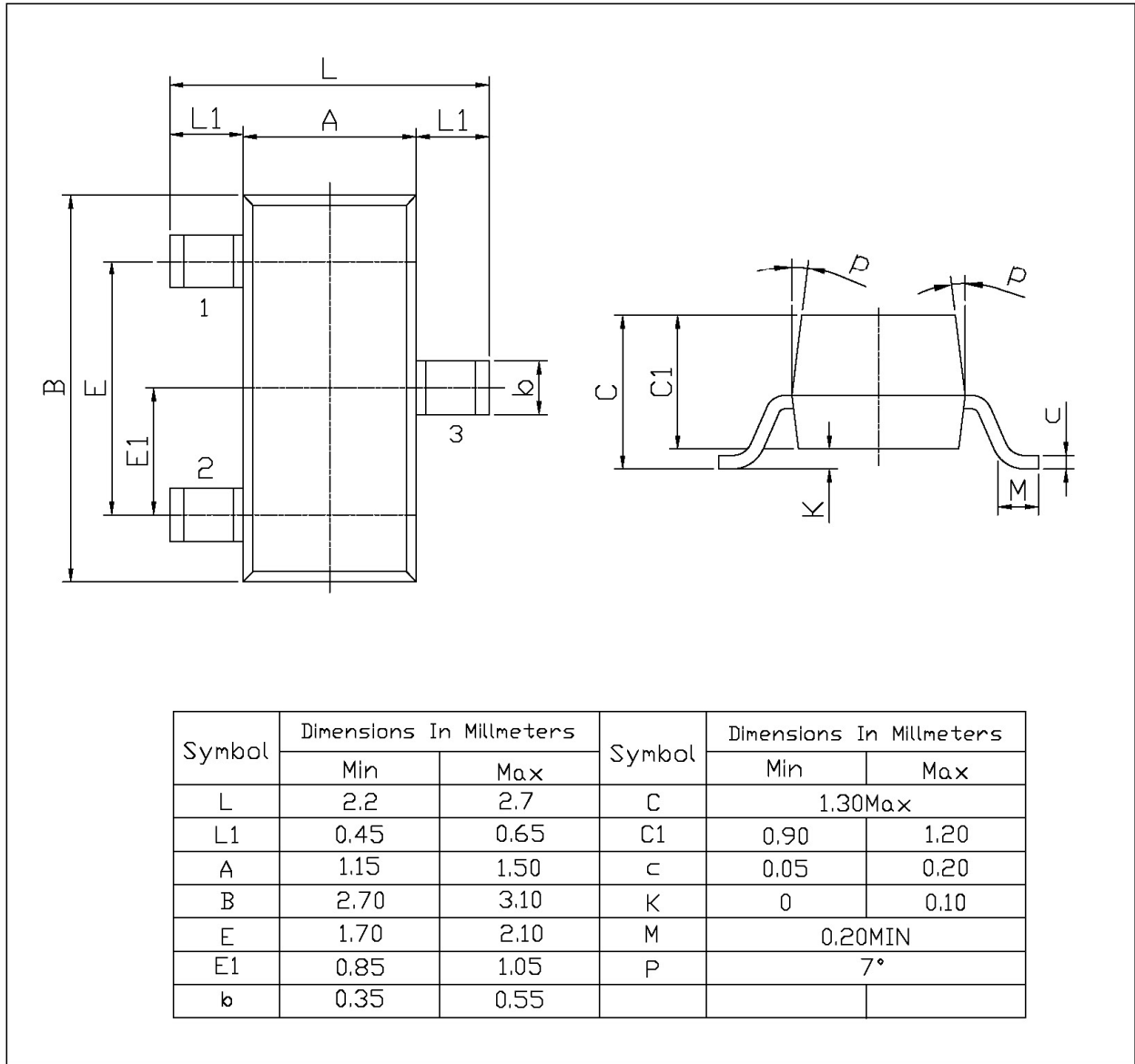
**电参数曲线图 / Electrical Characteristic Curve**



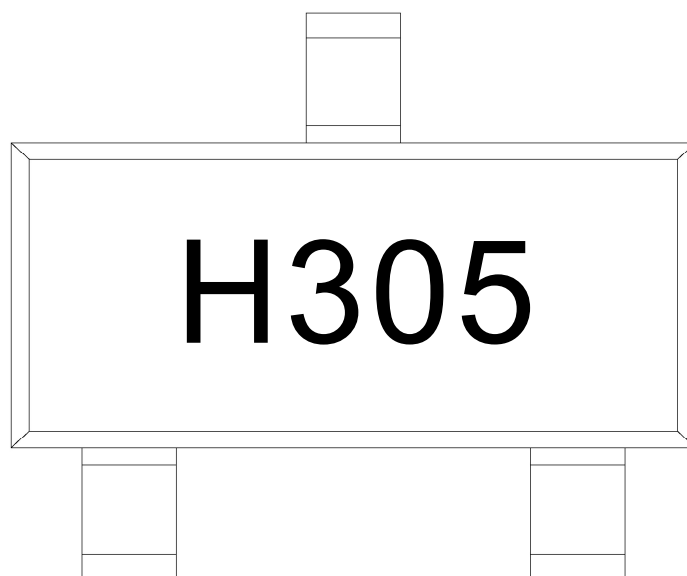
外形尺寸图 / Package Dimensions

SOT-23

单位: mm



印章说明 / Marking Instructions



说明：

H: 为公司代码

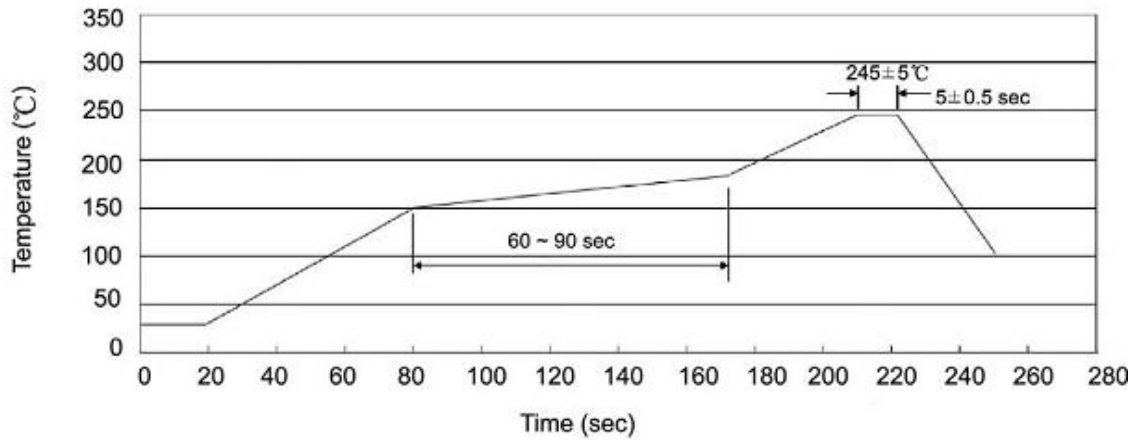
305: 为型号代码

Note:

H: Company Code.

305 : 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 150 ~ 180°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:150~180°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 <sup>3</sup> )		
	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**

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