描述 / Descriptions

SOT23-6 塑封封装双 P 沟道 MOS 场效应管。
Dual P-Channel MOSFET in a SOT23-6 Plastic Package.

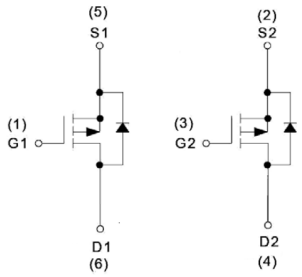
特征 / Features

超高密度设计，导通电阻小，可靠性好。
Super high dense cell design for low $R_{DS(ON)}$,Rugged and reliable.

用途 / Applications

用于电源管理，便携式设备和电池供电系统。
Power Management in Notebook computer, Portable Equipment and Battery powered systems.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN1：G1　PIN 2：S2　PIN 3：G2

PIN 4：D2　PIN 5：S1　PIN 6：D1

印章代码 / Marking

见印章说明。See Marking Instructions

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}	-20	V
Gate-Source Voltage	V_{GSS}	±12	V
Continuous Drain Current	I_D *	-3.0	A
Pulsed Drain Current	I_{DM}*	-12	A
Diode Continuous Forward Current	I_S*	-2.0	A
Power Dissipation for Single Operation	P_D* (Ta=25℃)	1.25	W
Power Dissipation for Single Operation	P_D* (Ta=100℃)	0.5	W
Maximum Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55～150	℃
Thermal Resistance-Junction to Ambient	$R_{\theta JA}$*	70	℃/W

Note:

* Surface Mounted on 1in2 pad area, t ≤ 10sec.

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

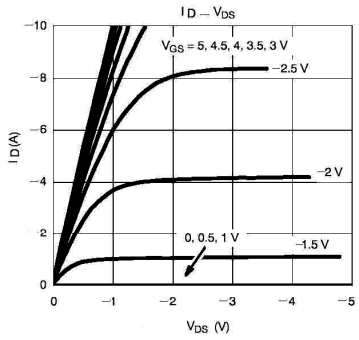
参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_{DS}=-250μA	-20			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-16V V_{GS}=0V			-1	μA
		V_{DS}=-16V V_{GS}=0V T_J=85°C			-10	
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_{DS}=-250μA	-0.50	-0.8	-1.0	V
Gate Leakage Current	I_{GSS}	V_{GS}=±12V V_{DS}=0V			±100	nA
Drain-Source On-state Resistance	$R_{DS(ON)}$ [a]	V_{GS}=-10V I_{DS}=-2.7A		75	97	mΩ
		V_{GS}=-4.5V I_{DS}=-2.7A		88	110	
		V_{GS}=-2.5V I_{DS}=-2.2A		120	150	
Diode Forward Voltage	V_{SD} [a]	V_{GS}=0V I_{SD}=-1.0A		-0.7	-1.3	V
Total Gate Charge	Q_g [b]	V_{DS}=-6V V_{GS}=-4.5V I_{DS}=-2.7A		5.8	10	nC
Gate-Source Charge	Q_{gs} [b]			0.85		nC
Gate-Drain Charge	Q_{gd} [b]			1.7		nC

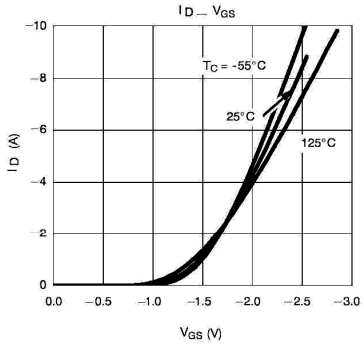
电性能参数 / Electrical Characteristics(Ta=25℃)

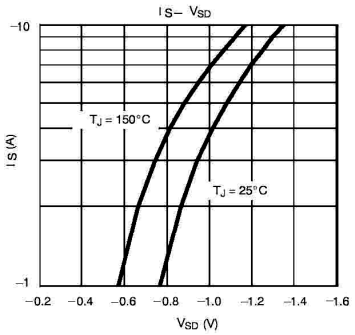
参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Gate Resistance	R_G [b]	V_{GS}=0V V_{DS}=0V F=1MHz		6		Ω
Input Capacitance	C_{iss} [b]	V_{GS}=0V V_{DS}=-6V Frequency=1.0MHz		415		pF
Output Capacitance	C_{oss} [b]			223		
Reverse Transfer Capacitance	C_{rss} [b]			84		
Turn-on Delay Time	$t_{d(ON)}$ [b]	V_{DD}=-6V R_L=6Ω I_{DS}=-1A V_{GEN}=-10V R_G=6Ω		13	25	ns
Turn-on Rise Time	T_r [b]			36	60	
Turn-off Delay Time	$T_{d(OFF)}$ [b]			42	70	
Turn-off Fall Time	T_f [b]			34	60	

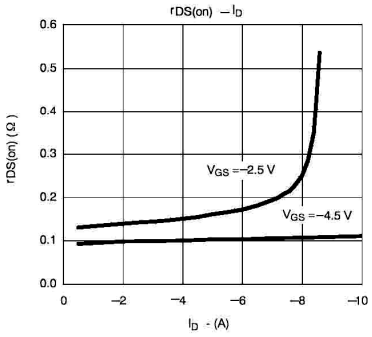
Notes:
a : Pulse test ; pulse width≤300μs, duty cycle≤2%.
b : Guaranteed by design, not subject to production testing.

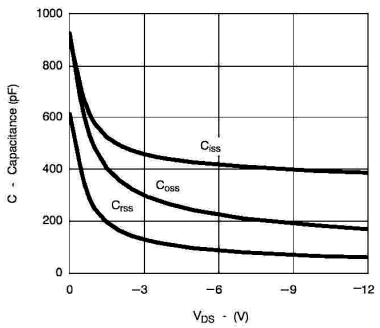
电参数曲线图 / Electrical Characteristic Curve

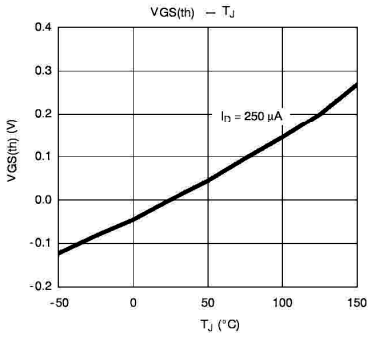


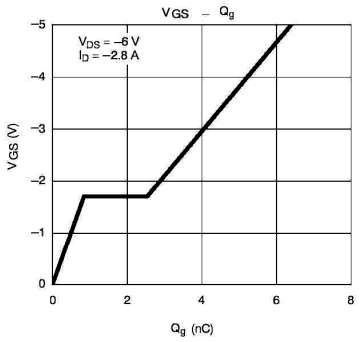


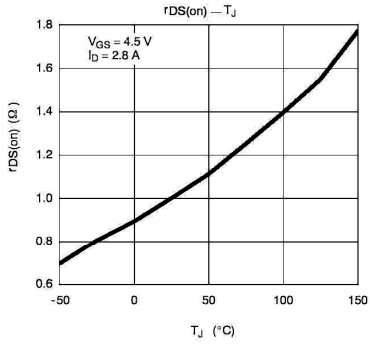


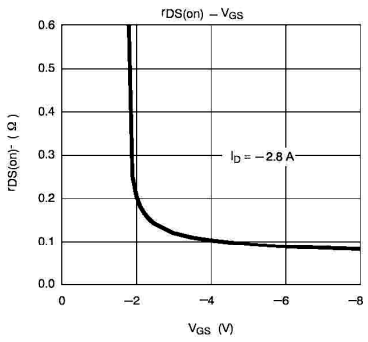


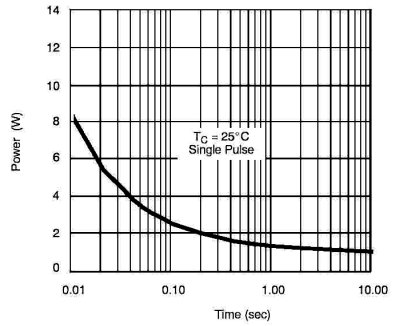




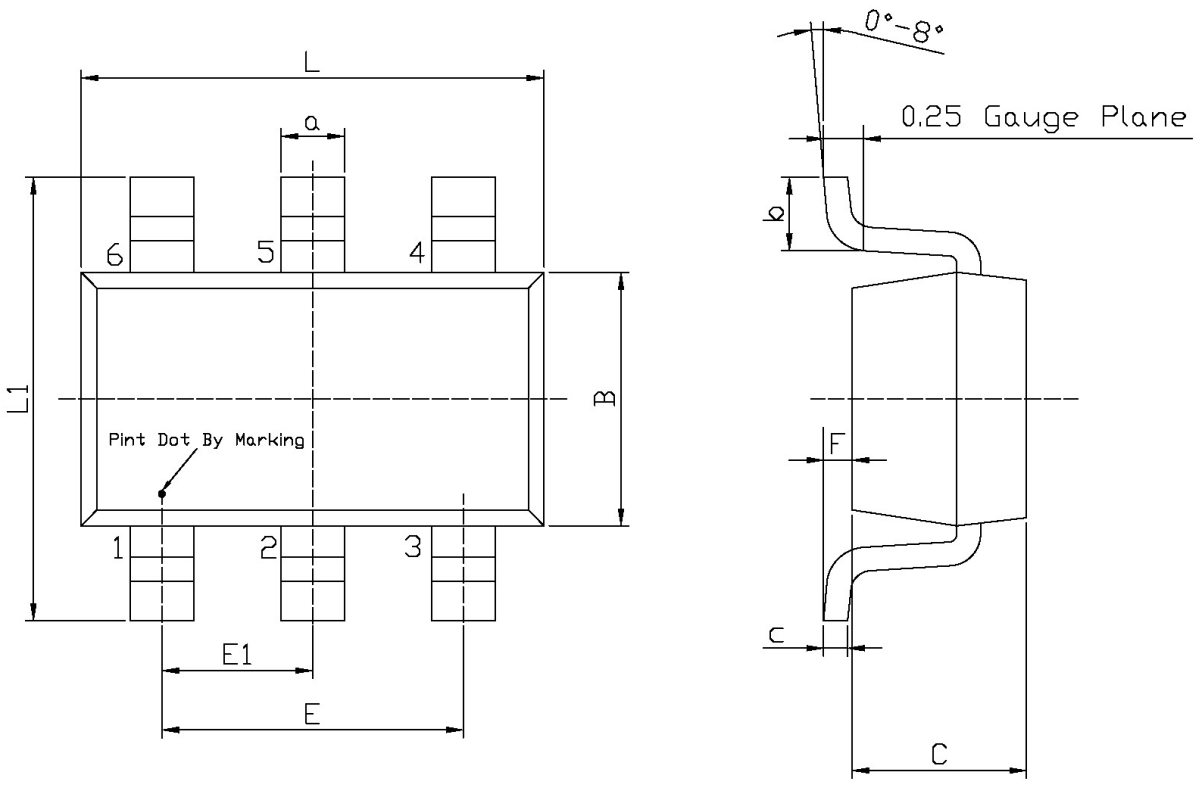








外形尺寸图 / Package Dimensions

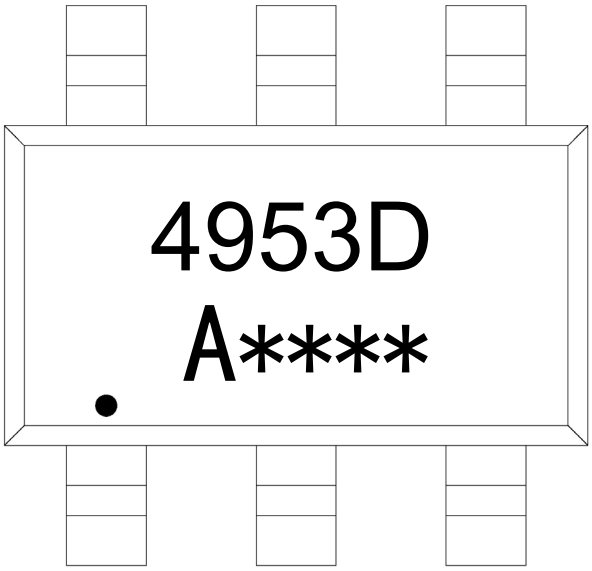


Unit: mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
L	2.82	3.02	E1	0.85	1.05
B	1.50	1.70	a	0.35	0.50
C	0.90	1.30	c	0.10	0.20
L1	2.60	3.00	b	0.35	0.55
E	1.80	2.00	F	0	0.15

SOT23-6

印章说明 / Marking Instructions



说明：

4953D： 为型号代码

****： 为生产批号代码，随生产批号变化。

A: 为芯片标识位（标识位可空,也可为 A、B、C、D……等字母）

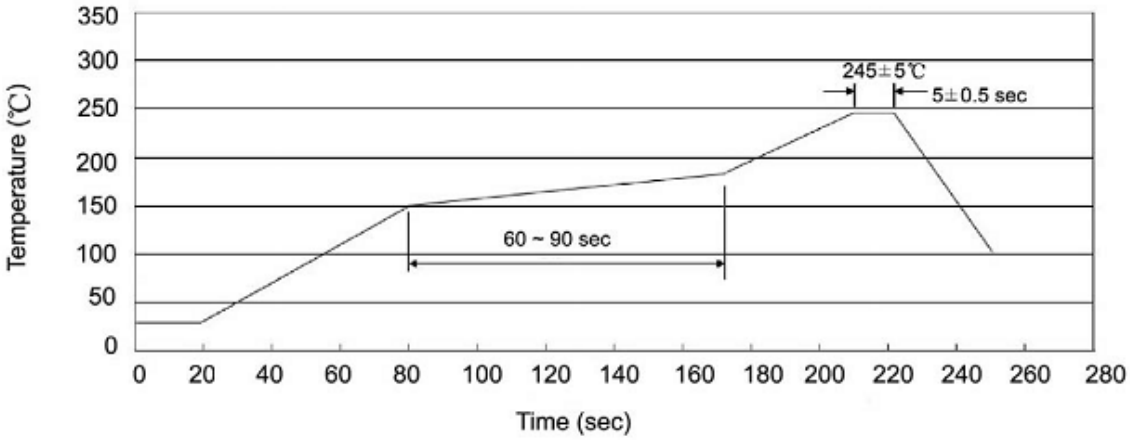
Note:

4953D: Product Type

A: Chip sign(Flag bit may be empty,or the letter A、B、C、D……).

****: Lot No. Code, code change with Lot No.

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℃，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:150~180℃, 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
SOT23-5/6	3,000	10	30,000	4	120,000	7″ ×8	210×205×205	445×230×435

使用说明 / Notices

不同芯片标识的产品可以替换使用，为确保一致性，建议同一批次使用相同芯片标识的产品。

Different chip sign products can be used to replace ,in order to ensure consistency .We suggest to use the same chip sign products for the same batch.

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Üretici parça numarasını yazın; stok ve fiyatı hemen görün.

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Üreticileri görün

Toplu alım ve teklif

Listede olmayan ya da yüksek adetli parçalar için teklif isteyin.

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