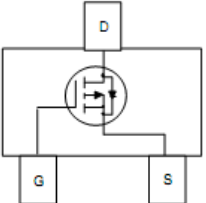


<p>P沟道 增强型 场效应晶体管 P-Channel Enhancement-Mode MOS FETs</p>	<p><b>HPM3401A</b> P-Channel Enhancement Mode MOS FETs</p> <p>对应其他工业型号 SI3401A AO3401A ME3401A GM3401A</p>
<p><b>Features</b></p> <ul style="list-style-type: none"> <li>■ -30V, -4.2A, <math>R_{DS(ON)}=53m\Omega @ V_{GS}=-4.5V</math></li> <li>■ High dense cell design for extremely low <math>R_{DS(ON)}</math></li> <li>■ Rugged and reliable</li> <li>■ Lead free product is acquired</li> <li>■ SOT-23 Package</li> <li>■ Marking Code: X1</li> </ul> <p>Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0</p> <div style="text-align: center;">  </div>	

<p>Internal Block Diagram</p> <div style="text-align: center;">  </div> <p>SOT-23 内部结构</p>	<p>HPM3401A (Package: SOT-23)</p> <div style="text-align: center;">  </div> <p>SOT-23 管脚排列</p>	<p>元件标识 (打印)</p> <div style="text-align: center;">  </div> <p>DEVICE MARKING: X1</p>
--	--	--

■ MAXIMUM RATINGS 最大额定值

Characteristic 特性参数	Symbol 符号	Max 最大值	Unit 单位
Drain-Source Voltage 漏极-源极电压	$BV_{DSS}$	-30	V
Gate- Source Voltage 栅极-源极电压	$V_{GS}$	$\pm 12$	
Drain Current (continuous) 漏极电流-连续	$I_D$	-4.2	A
Drain Current (pulsed) 漏极电流-脉冲	$I_{DM}$	-18	
Total Device Dissipation 总耗散功率 $T_A=25^\circ C$ (环境温度为25°C)	$P_D$	1400	mW
Junction 结温	$T_j$	150	°C
Storage Temperature 储存温度	$T_{stg}$	-55 to +150	
Solder Temperature/Solder Time 焊接温度/焊接时间	T/t	260/10	°C/S

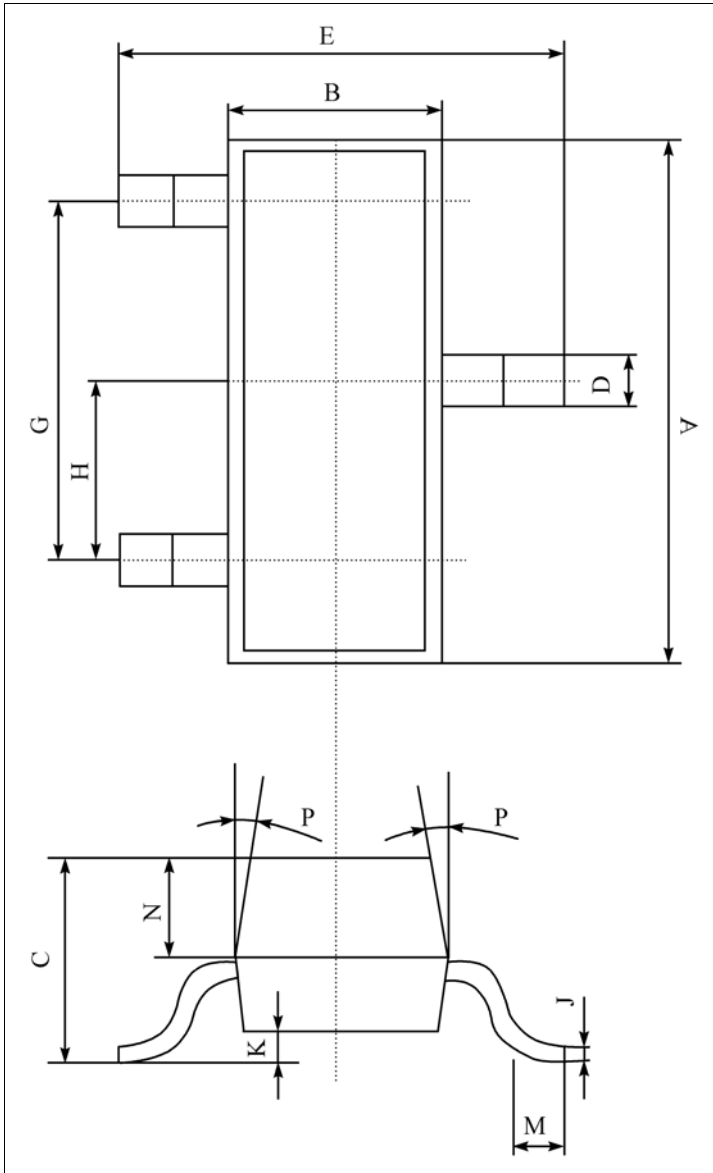
**■ ELECTRICAL CHARACTERISTICS 电特性 ( $T_A=25^\circ\text{C}$  unless otherwise noted 如无特殊说明, 温度为 $25^\circ\text{C}$ )**

Characteristic 特性参数	Symbol 符号	Min 最小值	Typ 典型值	Max 最大值	Unit 单位
Drain-Source Breakdown Voltage 漏极-源极击穿电压 ( $I_D=-250\mu\text{A}$ , $V_{GS}=0\text{V}$ )	$BV_{DSS}$	-30	--	--	V
Gate Threshold Voltage 栅极开启电压 ( $I_D=-250\mu\text{A}$ , $V_{GS}=V_{DS}$ )	$V_{GS(th)}$	-0.6	--	-2.0	
Diode Forward Voltage Drop 内附二极管正向压降 ( $I_S=-1\text{A}$ , $V_{GS}=0\text{V}$ )	$V_{SD}$	--	--	-1	
Zero Gate Voltage Drain Current 零栅压漏极电流	$I_{DSS}$	$V_{GS}=0\text{V}$ , $V_{DS}=-24\text{V}$	--	--	-1
		$V_{GS}=0\text{V}$ , $V_{DS}=-24\text{V}$ , $T_A=55^\circ\text{C}$	--	--	-5
Gate Body Leakage 栅极漏电流	$I_{GSS}$	--	--	$\pm 100$	nA
Static Drain-Source On-State Resistance 静态漏源导通电阻	$R_{DS(ON)}$	$I_D=-4.2\text{A}$ , $V_{GS}=-10\text{V}$	--	42	50
		$I_D=-2\text{A}$ , $V_{GS}=-4.5\text{V}$	--	53	60
		$I_D=-1\text{A}$ , $V_{GS}=-2.5\text{V}$	--	80	85
Input Capacitance 输入电容 ( $V_{GS}=0\text{V}$ , $V_{DS}=-15\text{V}$ , $f=1\text{MHz}$ )	$C_{ISS}$	--	954	--	pF
Common Source Output Capacitance 共源输出电容 ( $V_{GS}=0\text{V}$ , $V_{DS}=-15\text{V}$ , $f=1\text{MHz}$ )	$C_{OSS}$	--	115	--	
Turn-ON Time 开启时间 ( $V_{DS}=-15\text{V}$ , $V_{GS}=-10\text{V}$ , $R_{GEN}=6\Omega$ )	$t_{(on)}$	--	6	--	nS
Turn-OFF Time 关断时间 ( $V_{DS}=-15\text{V}$ , $V_{GS}=-10\text{V}$ , $R_{GEN}=6\Omega$ )	$t_{(off)}$	--	38	--	

Pulse Width  $\leq 300\mu\text{s}$ ; Duty Cycle  $\leq 2.0\%$

■ DIMENSION 外形封装尺寸数据

Package: SOT-23 HAOHAI Package Code: MM



序号	数值及公差
A	2.90±0.10
B	1.30±0.10
C	1.00±0.10
D	0.40±0.10
E	2.40±0.20
G	1.90±0.10
H	0.95±0.05
J	0.13±0.05
K	0.00-0.10
M	≥0.20
N	0.60±0.10
P	7±2°
Packing Tape & Reel, 3Kpcs/Reel SOT-23 包装规格 SMD片式表面贴封装 包装方式: 载带卷盘包装 每卷数量3000只 (3Kpcs/Reel) 每盒数量30000只 (30Kpcs/BOX) 每箱数量300000只 (300Kpcs/Cartons)	

