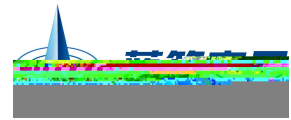


版本	修订日期	有修订的页码	修订涉及的内容	拟制	审核
A	2021.6.22	ALL	基于 VISHAY-si2392ads 与 AOS-AOSS62934 规格书创建	庞隆基	陈逸晞

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/ Descriptions

SOT-89 塑封封装 N 沟道 MOS 场效应管。

N- CHANNEL MOSFET in a SOT-89 Plastic Package.

/ Features

$V_{DS} (V) = 100V$

$I_D = 4A (V_{GS} = 10V)$

$R_{DS(ON)} < 115m (V_{GS} = 10V)$

$R_{DS(ON)} < 150m (V_{GS} = 4.5V)$

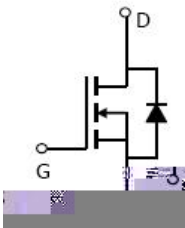
无卤产品。HF Product.

/ Applications

适用于作负载开关或脉宽调制应用。

This device is suitable for use as a load switch or in PWM applications.

/ Equivalent Circuit



/ Pinning



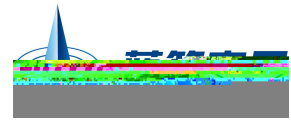
PIN 1 : G

PIN 2 : D

PIN 3 : S

/ Marking

详见印章说明页。 See Marking Instructions.

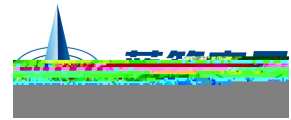


/ Absolute Maximum Ratings(Ta=25)

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	100	V
Continuous Drain Current		I_D	4	A
Pulsed Drain Current		I_{DM}	16	A
Gate-Source Voltage		V_{GS}	± 20	V
Total Power Dissipation		P_D	2.0	W
Operating and Storage Junction Temperature Range		T_J, T_{STG}	-55 to 150	$^{\circ}C$
Maximum Junction-to-Ambient	$t \leq 10s$	$R_{\theta JA}$	62.5	$^{\circ}C/W$
Maximum Junction-to-Ambient	Steady-State		87	$^{\circ}C/W$
Maximum Junction-to-Lead	Steady-State	$R_{\theta JL}$	55.5	$^{\circ}C/W$

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250\mu A$	100			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=100V$ $V_{GS}=0V$			1	μA
		$V_{DS}=100V$ $V_{GS}=0V$ $T_J=55^{\circ}C$			5	μA
Gate-Body Leakage.	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 0.1	μA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	1.2	1.6	2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)(1)}$	$V_{GS}=10V$ $I_D=1A$		107	115	$m\Omega$
	$R_{DS(on)(2)}$	$V_{GS}=4.5V$ $I_D=1A$		140	150	
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_S=1A$			1.2	V

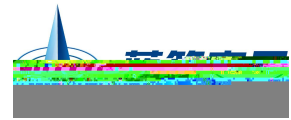


/ Electrical Characteristics(Ta=25)

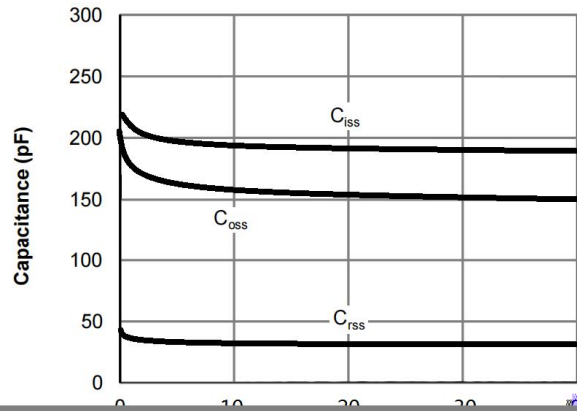
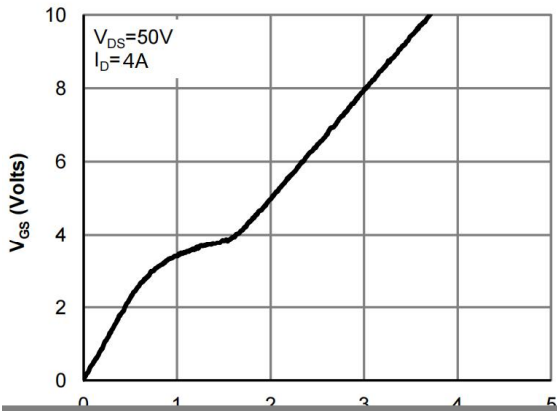
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Capacitance	C_{iss}	$V_{DS}=25V$ $V_{GS}=0V$ $f=1MHz$		190		pF
Output Capacitance	C_{oss}			155		
Reverse Transfer Capacitance	C_{rss}			28		
Gate resistance	R_g	$V_{GS}=0V$ $V_{DS}=0V$ $f=1MHz$		0.8		
Total Gate Charge	$Q_{g(10V)}$	$V_{GS}=10V,$ $V_{DS}=50V,$ $I_D=4A$		3.8		nC
Total Gate Charge	$Q_{g(4.5V)}$			1.8		
Gate Source Charge	Q_{gs}			0.8		
Gate Drain Charge	Q_{gd}			0.8		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $R_L=25$ $V_{DS}=50V$ $R_{GEN}=3$		5		ns
Turn-On Rise Time	t_r			3		
Turn-Off Delay Time	$t_{d(off)}$			19		
Turn-Off Fall Time	t_f			3		

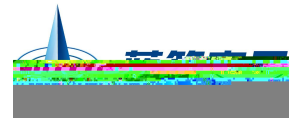
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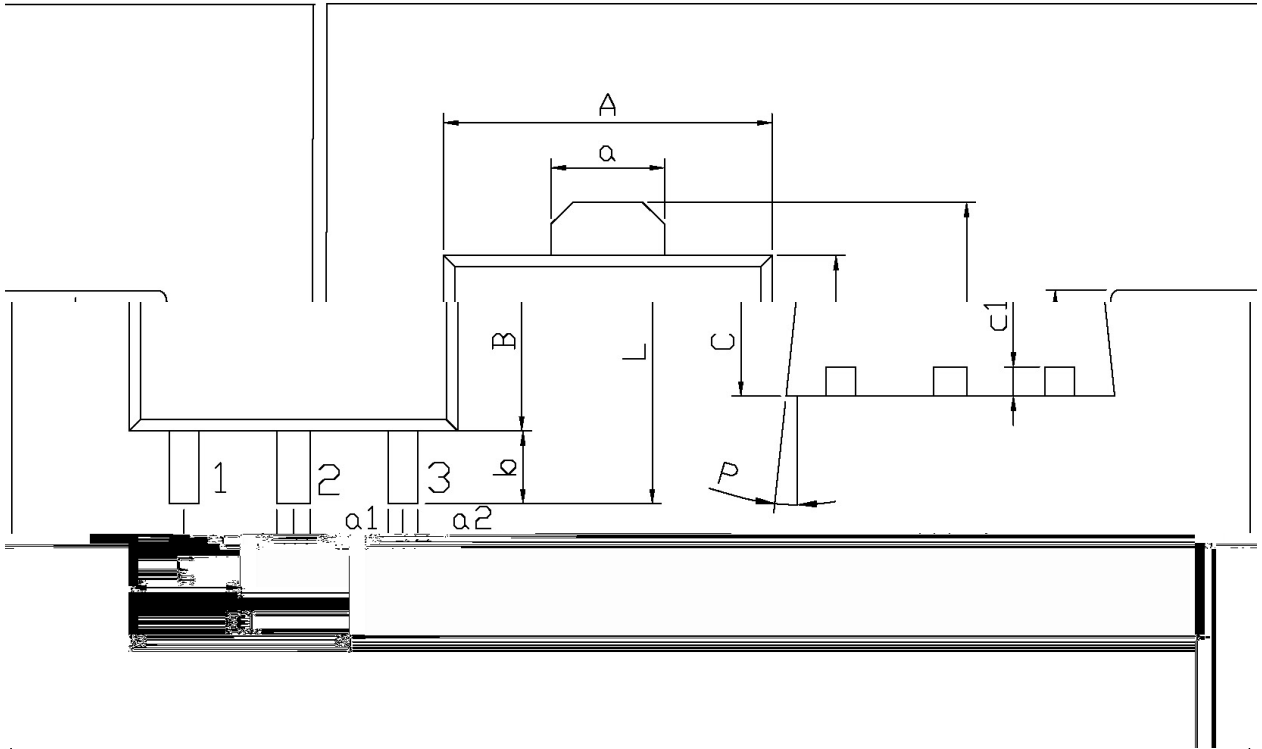
/ Electrical Characteristic Curve





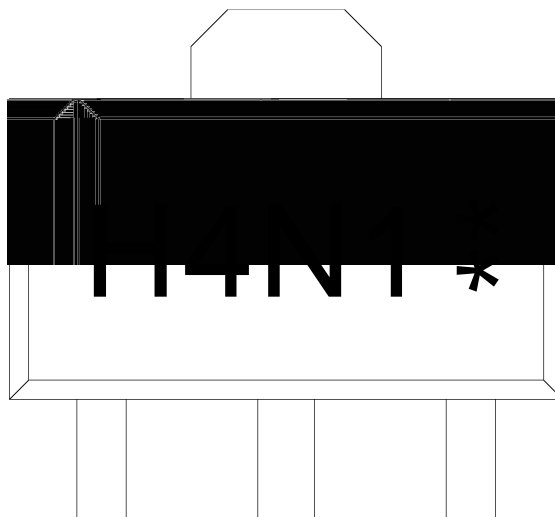
/ Package Dimensions

單位 mm



Dimensions		In Millimeters		In Inches	
a1	0.36	0.56	A	4.4	4.4
b	0.80	0.80	L	3.67	3.67
c1	0.30	0.50	a	1.45	1.45
P		6°	E	1.40	1.40
			E1	2.80	3.00
			b	0.80	1.00

/ Marking Instructions



说明：

4N1： 为型号代码

H： 为公司代码

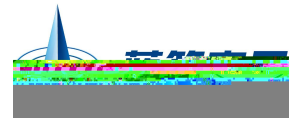
**： 为生产批号代码，随生产批号变化。

Note:

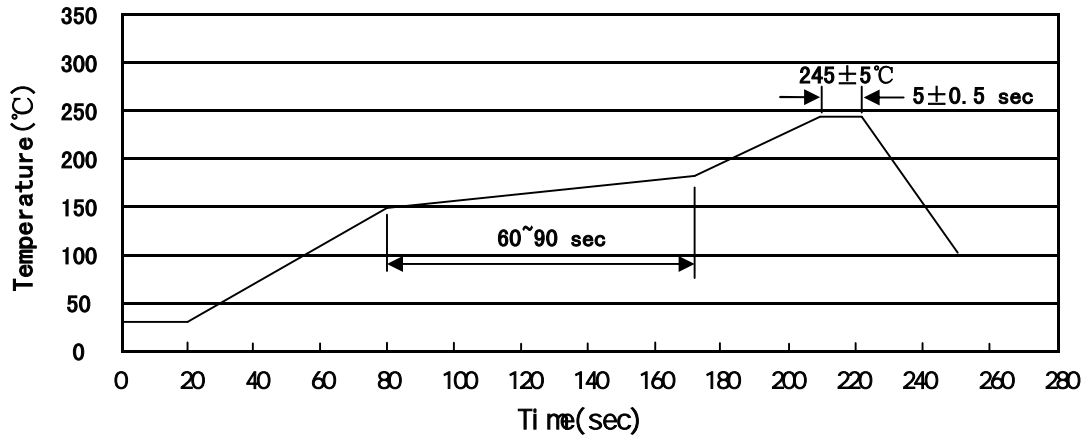
4N1: Product Type Code.

H: Company Code.

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



() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- | | | | |
|---|-------------|-----------|--|
| 1 | 150 180 | 60 90sec; | 1.Preheating:150~180°C, Time:60~90sec. |
| 2 | 245±5 | 5±0.5sec; | 2.Peak Temp.:245±5°C, Duration:5±0.5sec. |
| 3 | 2 10°C/sec. | | 3. Cooling Speed: 2~10°C/sec. |

/ Resistance to Soldering Heat Test Conditions

260±5°C 10±1 sec. Temp.:260±5°C Time:10±1 sec

/ Packaging SPEC.

/ 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/ nne 卷盘/盒	Units/ nne 只/盒	nne es/ ute 盒/箱	Units/ ute 只/箱	Reel	nne 盒	ute 箱
S T-89	1,000	7	7,000	6	42,000	7" ×12	180×120×180	390×358×205

/ Notices