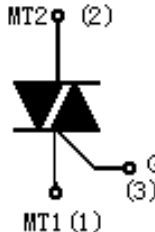




T0810NUP

主要参数 MAIN CHARACTERISTICS				封装 Package									
	$I_{T(RMS)}$	8A											
	V_{DRM}	800V											
	I_{GT}	15mA											
				<table><tr><th>序号 Pin</th><th>引线名称 Description</th></tr><tr><td>1</td><td>主电极 1 MT1</td></tr><tr><td>2</td><td>主电极 2 MT2</td></tr><tr><td>3</td><td>门极 G</td></tr></table>		序号 Pin	引线名称 Description	1	主电极 1 MT1	2	主电极 2 MT2	3	门极 G
序号 Pin	引线名称 Description												
1	主电极 1 MT1												
2	主电极 2 MT2												
3	门极 G												
用途		APPLICATIONS											
● 交流开关		● AC switching											
● 相位控制		● Phase control											
产品特性		FEATURES											
● 平面工艺芯片, 高可靠性和一致性		● The planar process chip for reliability and uniform											
● 三象限可控硅, 触发电流的一致性 好		● Uniform gate trigger currents in three quadrants											
● 环保 RoHS 产品		● RoHS products											
订货信息 ORDER MESSAGES													
订货型号 Order code		印 记 Marking		封 装 Package									
T0810NUP-O-U-N-A		T0810NFP		D-PAK									
				包 装 Packaging									
				编带 Tape									



绝对最大额定值 ABSOLUTE RATINGS ($T_C=25^{\circ}\text{C}$)

项 目 Parameter	符 号 Symbol	试 验 条 件 Condition	数 值 Value	单 位 Unit
重复峰值断态电压 Repetitive peak off-state voltage	V_{DRM}		± 800	V
通态方均根电流 On-state RMS current	$I_{\text{T(RMS)}}$	full sine wave	8	A
非重复浪涌峰值通态电流 Non-repetitive surge peak on-state current	I_{TSM}	full sine wave ,t=20ms	80	A
		full sine wave ,t=16.7ms	84	A
	I^2t	t=10ms	36	A^2s
通态电流临界上升率 Repetitive rate of rise of on-state current after triggering	di/dt	$I_{\text{TM}}=12\text{A}$, $I_{\text{G}}=0.2\text{A}$, $di_{\text{G}}/dt=0.2\text{A}/\mu\text{s}$	50	$\text{A}/\mu\text{s}$
峰值门极电流 Peak gate current	I_{GM}		4	A
峰值门极电压 Peak gate voltage	V_{GM}		5	V
峰值门极功率 Peak gate power	P_{GM}		5	W
平均门极功率 Average gate power	$P_{\text{G(AV)}}$	over any 20ms period	1	W
存储温度 Storage temperature	T_{stg}		-40~150	$^{\circ}\text{C}$
操作结温 Operation junction temperature	T_{VJ}		-40~150	$^{\circ}\text{C}$



电特性 ELECTRICAL CHARACTERISTIC ($T_c=25^\circ\text{C}$)

项 目 Parameter	符 号 Symbol	测 试 条 件 Condition	最小 Min	典型 Typ	最大 Max	单位 Unit
峰值重复断态电流 Peak Repetitive Blocking Current	I_{DRM}	$V_{\text{DM}}=V_{\text{DRM}}$, $T_j=150^\circ\text{C}$, gate open	-	-	1.0	mA
峰值通态电压 Peak on-state voltage	V_{TM}	$I_{\text{TM}}=11.3\text{A}$	--	1.3	1.55	V
门极触发电流 Gate trigger current	I_{GT}	$V_{\text{DM}}=12\text{V}$, $R_L=100\ \Omega$ MT1(-),MT2(+),G(+)	5	-	15	mA
		MT1(-),MT2(+),G(-)	5	-	15	mA
		MT1(+),MT2(-),G(-)	9	-	15	mA
门极触发电压 Gate trigger voltage	V_{GT}	$V_{\text{DM}}=12\text{V}$, $R_L=100\ \Omega$ MT1(-),MT2(+),G(+)	0.5	0.7	1.0	V
		MT1(-),MT2(+),G(-)	0.5	0.7	1.5	V
		MT1(+),MT2(-),G(-)	0.5	0.7	1.5	V
维持电流 Holding current	I_{H}	$V_{\text{DM}}=12\text{V}$, $I_{\text{GT}}=0.1\text{A}$	-	-	20	mA
擎住电流 Latching current	I_{L}	$V_{\text{DM}}=12\text{V}$, $I_{\text{GT}}=0.1\text{A}$ MT1(-),MT2(+),G(+)	-	-	30	mA
		MT1(-),MT2(+),G(-)	-	-	30	mA
		MT1(+),MT2(-),G(-)	-	-	30	mA
断态临界电压上升率 Rise of off- state voltage	dV/dt	$V_{\text{DM}}=67\% V_{\text{DRM(MAX)}}$, $T_j=150^\circ\text{C}$, gate open	500	-	-	V/ μs
门极开通时间 Gate controlled turn-on time	tgt	$I_{\text{TM}}=6\text{A}$, $V_{\text{DM}}=V_{\text{DRM(MAX)}}$, $I_{\text{G}}=0.1\text{A}$, $dI_{\text{G}}/dt=5\text{A}/\mu\text{s}$	-	2	-	μs

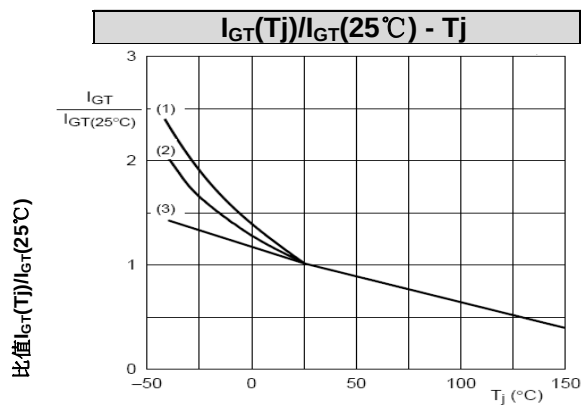
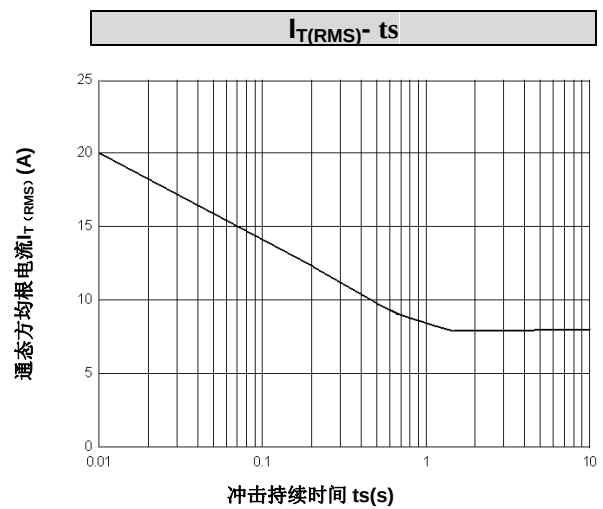
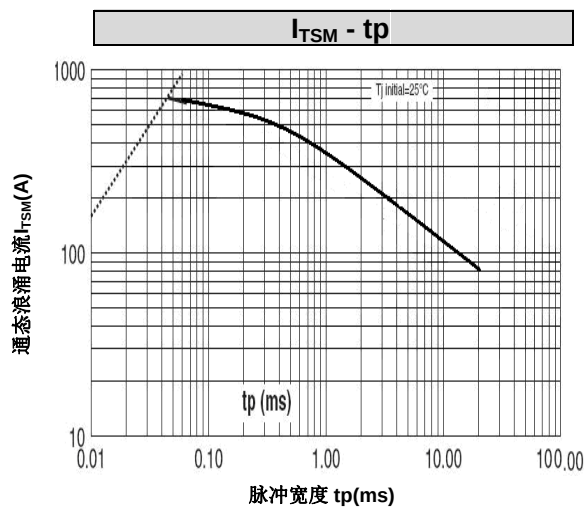
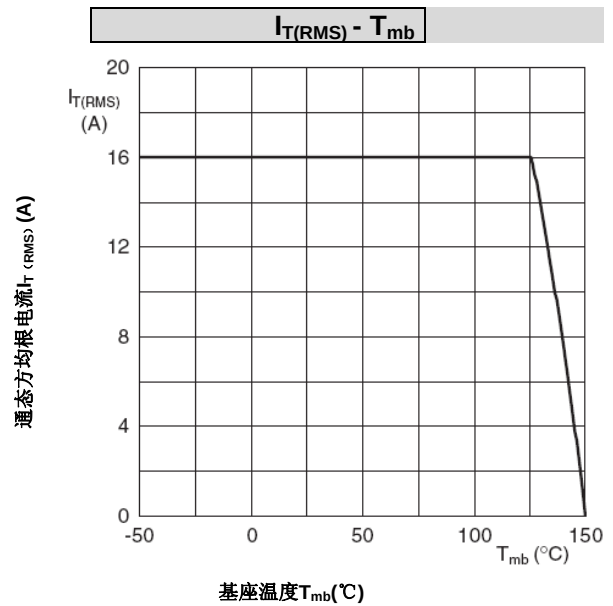
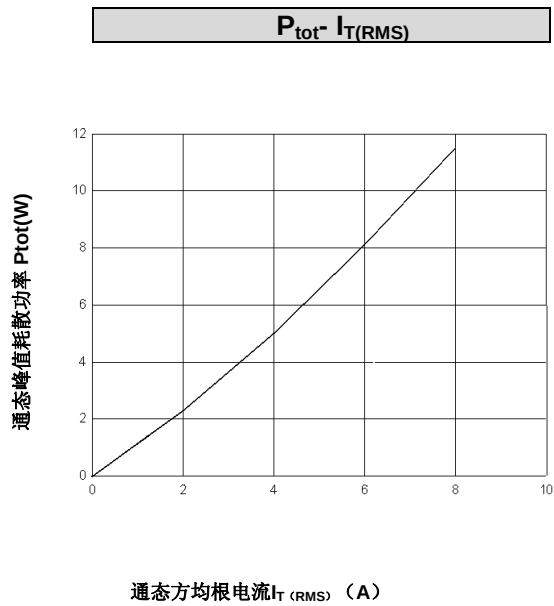
热特性 THERMAL CHARACTERISTIC

项 目 Parameter	符 号 Symbol	条 件 Condition	最小 Min	典型 Typ	最大 Max	单位 Unit
结到安装面的热阻 Thermal resistance junction to mounting base	$R_{\text{th(j-mb)}}$	full cycle(TO-220HF)			2.0	$^\circ\text{C}/\text{W}$

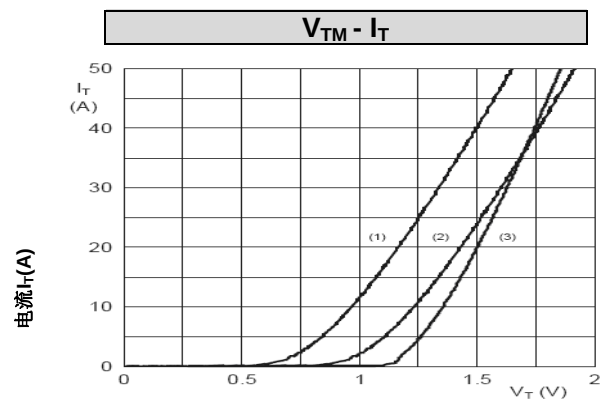




特征曲线 ELECTRICAL CHARACTERISTICS (curves)



- (1) T2- G-
- (2) T2+ G-
- (3) T2+ G+

结温 $T_J(^{\circ}C)$ 

- $V_o = 1.024 V$ $R_s = 0.021 \Omega$
- (1) $T_J = 150^{\circ}C$; typical values
 - (2) $T_J = 150^{\circ}C$; maximum values
 - (3) $T_J = 25^{\circ}C$; maximum values

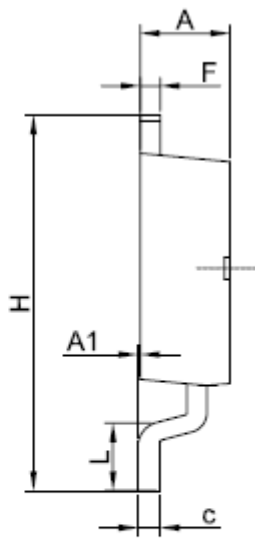
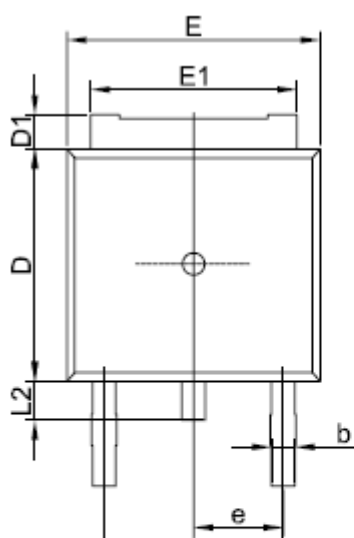
通态压降 $V_{TM}(V)$ 



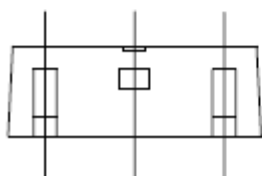
外形尺寸 PACKAGE MECHANICAL DATA

D-PAK

单位 Unit : mm



符号 symbol	MIN	MAX
A	2.2	2.4
A1	0.0	0.2
b	0.7	0.9
c	0.45	0.55
D	6.0	6.3
D1	0.8	1.2
E	6.5	6.8
E1	5.2	5.5
e	2.285 TYP	
F	0.45	0.55
H	9.65	10.45
L	1.0	1.3
L2	0.7	1.3



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3. 在电路设计时请不要超过器件的绝对最大额定值，否则会影响整机的可靠性。
4. 本说明书如有版本变更不另外告知

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3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
4. Jilin Sino-microelectronics co., Ltd reserves the right to make changes in this specification sheet and is subject to change without prior notice.

联系方式**(芯片厂商)****吉林华微电子股份有限公司**

公司地址：吉林省吉林市深圳街 99 号

邮编：132013

总机：86-432-64678411

传真：86-432-64665812

网址：www.hwdz.com.cn**销售业务部**

地址：吉林省吉林市深圳街 99 号

邮编：132013

电话：86-432-64675588

64675688

64678411

传真：86-432-64671533

CONTACT**(MANUFACTURE FACTORY)****JILIN SINO-MICROELECTRONICS CO., LTD.**ADD: No.99 Shenzhen Street, Jilin City,
Jilin Province, China.

Post Code: 132013

Tel: 86-432-64678411

Fax: 86-432-64665812

Web Site: www.hwdz.com.cn**MARKET DEPARTMENT**ADD: No.99 Shenzhen Street, Jilin City,
Jilin Province, China.

Post Code: 132013

Tel: 86-432-64675588

64675688

64678411

Fax: 86-432-64671533

附录 (Appendix)：修订记录 (Revision History)

日期 Date	旧版本 Last Rev.	新版本 New Rev.	修订内容 Description of Changes

