



T1625H/T1635H/T1650H

主要参数 MAIN CHARACTERISTICS

$I_{T(RMS)}$	16A
$V_{DRM} V_{RRM}$	1000V
$I_{GT}(T1625H)$	25mA
$I_{GT}(T1635H)$	35mA
$I_{GT}(T1650H)$	50mA

用途

- 交流开关
- 相位控制

APPLICATIONS

- AC switching
- Phase control

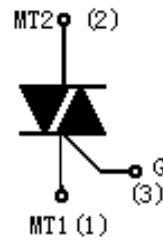
产品特性

- 玻璃钝化芯片，高可靠性和一致性
- 三象限可控硅，触发电流的一致性好
- 环保 RoHS 产品

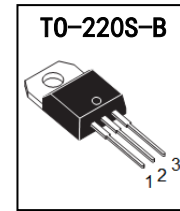
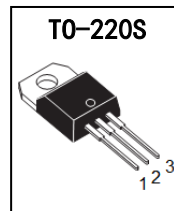
FEATURES

- Glass-passivated mesa chip for reliability and uniform
- Uniform gate trigger currents in three quadrants
- RoHS products

封装 Package



序号 Pin	引线名称 Description
1	主电极 1 MT1
2	主电极 2 MT2
3	门极 G



订货信息 ORDER MESSAGES

订货型号 Order codes				印 记 Marking	封 装 Package
有卤-条管	无卤-条管	有卤-编带	无卤-编带		
Halogen-Tube	halogen-Free-Tube	Halogen-Reel	Halogen-Free-Reel		
T1625HJ-CB-B	T1625HJ-CB-BR	N/A	N/A	T1625HJ	TO-220S
T1625HB-CD-B	T1625HB -CD-BR	N/A	N/A	T1625HB	TO-220S-B
T1635HJ-CB-B	T1635HJ-CB-BR	N/A	N/A	T1635HJ	TO-220S
T1635HB-CD-B	T1635HB -CD-BR	N/A	N/A	T1635HB	TO-220S-B
T1650HJ-CB-B	T1650HJ-CB-BR	N/A	N/A	T1650HJ	TO-220S
T1650HB-CD-B	T1650HB -CD-BR	N/A	N/A	T1650HB	TO-220S-B



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}		± 1000	V
通态方均根电流 On-state RMS current	$I_{\text{T(RMS)}}$	full sine wave,	16	A
非重复浪涌峰值通态电流 Non-repetitive surge peak on-state current	I_{TSM}	full sine wave , $t=20\text{ms}$	160	A
		full sine wave , $t=16.7\text{ms}$	168	A
	I^2t	$t=10\text{ms}$	128	A^2s
通态电流临界上升率 Repetitive rate of rise of on-state current after triggering	d /dt	$I_{\text{TM}}=20\text{A}$, $I_{\text{G}}=0.2\text{A}$, $dI_{\text{G}}/dt=0.2\text{A}/\mu\text{s}$	100	$\text{A}/\mu\text{s}$
峰值门极电流 Peak gate current	I_{GM}		2	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	0.5	W
存储温度 Storage temperature	T_{stg}		-40~ 50	$^\circ\text{C}$
操作结温 Operation junction temperature	T_{VJ}		-40~125	$^\circ\text{C}$

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}	$V_{\text{DM}}=V_{\text{DRM}}$, $T_{\text{j}}=125^\circ\text{C}$, gate open	-	-	2.0	mA
峰值通态电压 Peak on-state voltage	V_{TM}	$I_{\text{TM}}=20\text{A}$	-	1.4	1.7	V
门极开通时间 Gate controlled turn-on time	tgt	$I_{\text{TM}}=20\text{A}$, $V_{\text{DM}}=V_{\text{DRM(MAX)}}$, $I_{\text{G}}=0.1\text{A}$, $dI_{\text{G}}/dt=5\text{A}/\mu\text{S}$	-	2	-	μs

电绝缘特性 ELECTRICAL ISOLATION

项 目 Parameter	符 号 Symbol	条 件 Condition	数 值 Value	单 位 Unit
绝缘电压 Isolation voltage	V_{ISOL}	1 minute, leads to mounting tab TO-220S	2000	V



电特性 ELECTRICAL CHARACTERISTIC (T_c=25°C)

项 目 Parameter	符 号 Symbol	测 试 条 件 Condition			T1625H	T1635H	T1650H	单 位 Unit	
门极触发电流 Gate trigger current	I _{GT}	V _{DM} =12V, R _L =100Ω	I - II - III	MAX	25	35	50	mA	
门极触发电压 Gate trigger voltage	V _{GT}		ALL	MAX	1.5	1.5	1.5	V	
维持电流 Holding current	I _H	V _{DM} =12V, I _{GT} =0.1A			MAX	50	50	50	mA
擎住电流 Latching current	I _L	V _{DM} =12V, I _{GT} =0.1A	I - III	MAX	70	70	70	mA	
			II	MAX	80	80	80	mA	
断态临界电压上升率 Rise of off- state voltage	dV/dt	V _{DM} =67% V _{DRM(MAX)} , T _j =125°C, gate open			MAX	500	1000	1000	V/μs

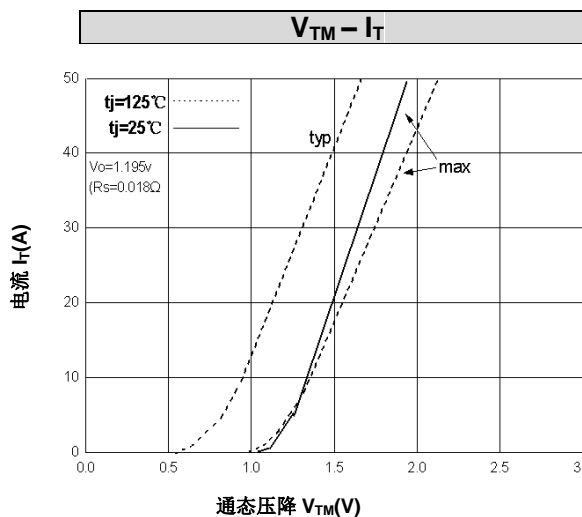
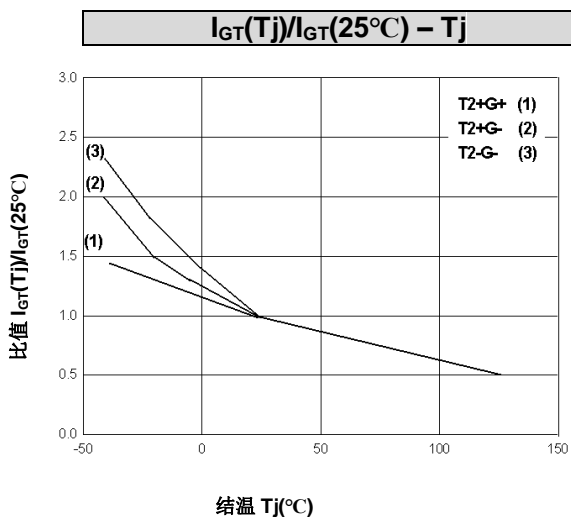
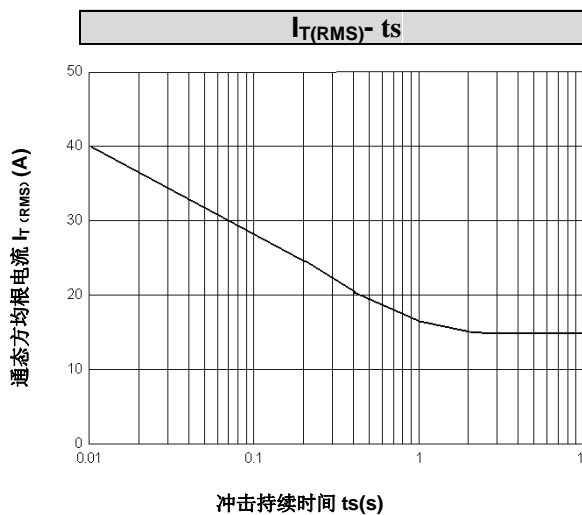
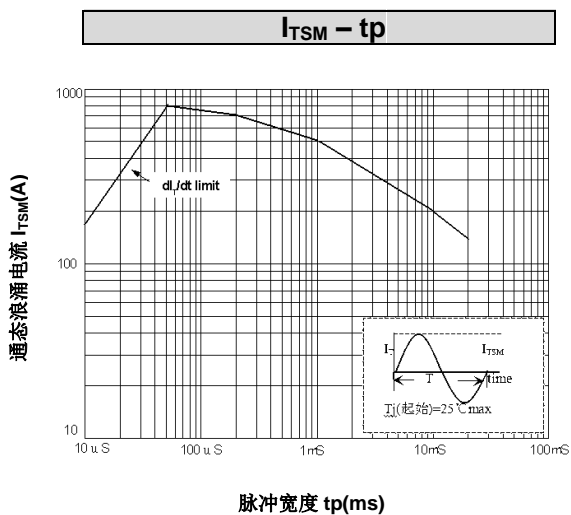
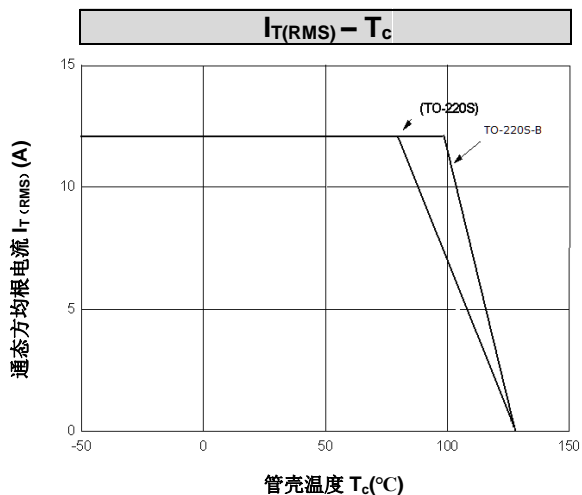
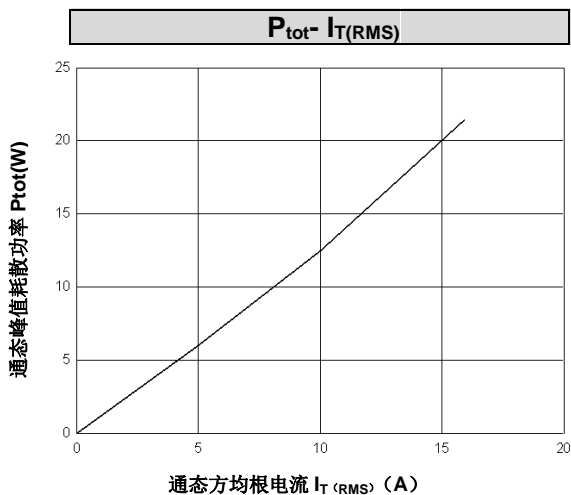
热特性 THERMAL CHARACTERISTIC

项 目 Parameter	符 号 Symbol	条 件 Condition	最 小 Min	典 型 Typ	最 大 Max	单 位 Unit
结到管壳的热阻 Thermal resistance junction to case	R _{th(j-c)}	full cycle(TO-220S-B)			1.2	°C/W
		full cycle(TO-220S)			2.2	°C/W





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

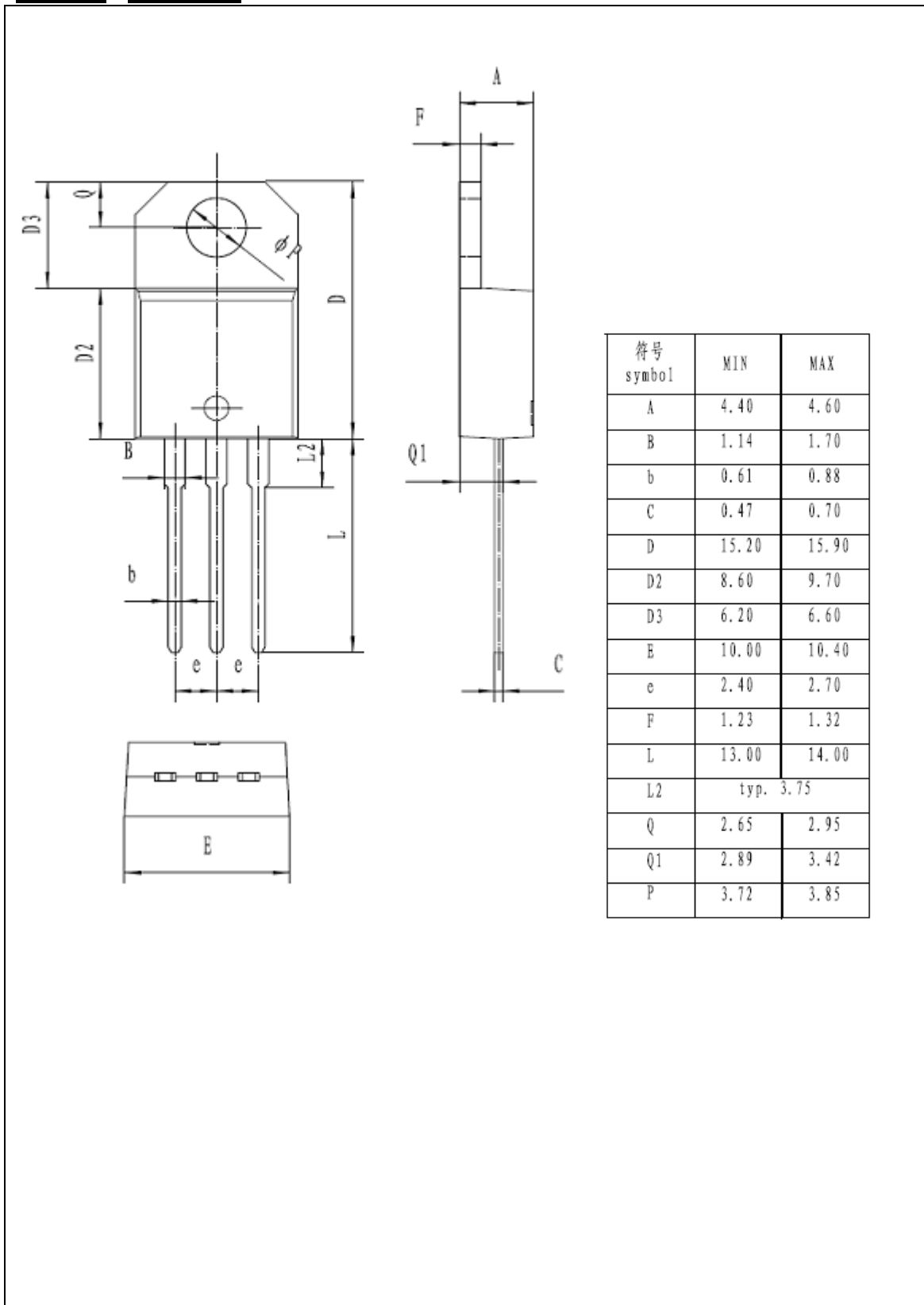




外形尺寸 PACKAGE MECHANICAL DATA

TO-220S TO-220S-B

单位 Unit : mm





注意事项

1. 吉林华微电子股份有限公司的产品销售分为直销和销售代理，无论哪种方式，订货时请与公司核实。
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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

NOTE

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2. We strongly recommend customers check carefully on the trademark when buying our product, if there is any question, please don't be hesitate to contact us.
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

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

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

