



# T0825H/T0835H/T0850H

## 主要参数 MAIN CHARACTERISTICS

$I_{T(RMS)}$	8A
$V_{DRM} V_{RRM}$	1000V
$I_{GT}(T0825H)$	25mA
$I_{GT}(T0835H)$	35mA
$I_{GT}(T0850H)$	50mA

### 用途

- 交流开关
- 相位控制

### 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

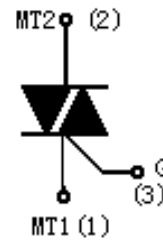
### APPLICATIONS

- AC switching
- Phase control

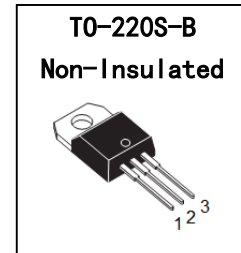
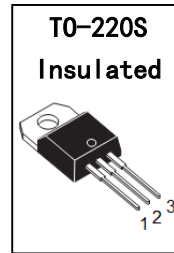
### FEATURES

- 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 Halogen-Tube	无卤-条管 halogen-Free-Tube	有卤-编带 Halogen-Reel	无卤-编带 Halogen-Free-Reel		
T0825HJ-CB-B	T0825HJ-CB-BR	N/A	N/A	T0825HJ	TO-220S
T0825HB-CD-B	T0825HB -CD-BR	N/A	N/A	T0825HB	TO-220S-B
T0835HJ-CB-B	T0835HJ-CB-BR	N/A	N/A	T0835HJ	TO-220S
T0835HB-CD-B	T0835HB -CD-BR	N/A	N/A	T0835HB	TO-220S-B
T0850HJ-CB-B	T0850HJ-CB-BR	N/A	N/A	T0850HJ	TO-220S
T0850HB-CD-B	T0850HB -CD-BR	N/A	N/A	T0850HB	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	$V_{\text{DRM}}$		$\pm 1000$	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	$I_{\text{TSM}}$	full sine wave ,t=20ms	80	A
		full sine wave ,t=16.7ms	84	A
		$I^2t$	t=10ms	32
通态电流临界上升率 Repetitive rate of rise of on-state current after triggering	dl/dt	$I_{\text{TM}}=12\text{A}$ , $I_{\text{G}}=0.2\text{A}$ , $dl_{\text{G}}/dt=0.2\text{A}/\mu\text{s}$	100	A/ $\mu\text{s}$
峰值门极电流 Peak gate current	$I_{\text{GM}}$		4	A
峰值门极电压 Peak gate voltage	$V_{\text{GM}}$		5	V
峰值门极功率 Peak gate power	$P_{\text{GM}}$		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	$T_{\text{stg}}$		-40~150	$^\circ\text{C}$
操作结温 Operation junction temperature	$T_{\text{VJ}}$		-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	$I_{\text{DRM}}$	$V_{\text{DM}}=V_{\text{DRM}}$ , $T_j=125^\circ\text{C}$ , gate open	-	-	1	mA
峰值通态电压 Peak on-state voltage	$V_{\text{TM}}$	$I_{\text{TM}}=11.3\text{A}$	-	1.3	1.7	V
门极开通时间 Gate controlled turn-on time	tgt	$I_{\text{TM}}=12\text{A}$ , $V_{\text{DM}}=V_{\text{DRM(MAX)}}$ , $I_{\text{G}}=0.1\text{A}$ , $dl_{\text{G}}/dt=5\text{A}/\mu\text{S}$	-	2	-	$\mu\text{s}$

## 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	$V_{\text{ISOL}}$	1 minute, leads to mounting tab TO-220S	2000	V



电特性 ELECTRICAL CHARACTERISTIC (T<sub>c</sub>=25°C)

项 目 Parameter	符 号 Symbol	测 试 条 件 Condition			T0825H	T0835H	T0850H	单 位 Unit	
门极触发电流 Gate trigger current	I <sub>GT</sub>	V <sub>DM</sub> =12V R <sub>L</sub> =100Ω	I - II - III	MAX	25	35	50	mA	
门极触发电压 Gate trigger voltage	V <sub>GT</sub>		ALL	MAX	1.5	1.5	1.5	V	
维持电流 Holding current	I <sub>H</sub>	V <sub>DM</sub> =12V, I <sub>GT</sub> =0.1A			MAX	50	50	50	mA
擎住电流 Latching current	I <sub>L</sub>	V <sub>DM</sub> =12V I <sub>GT</sub> =0.1A	I - III	MAX	50	50	50	mA	
			II	MAX	70	75	75	mA	
断态临界电压上升率 Rise of off- state voltage	dV/dt	V <sub>DM</sub> =67% V <sub>DRM(MAX)</sub> , T <sub>j</sub> =125°C, gate open			MAX	500	1000	1000	V/μs

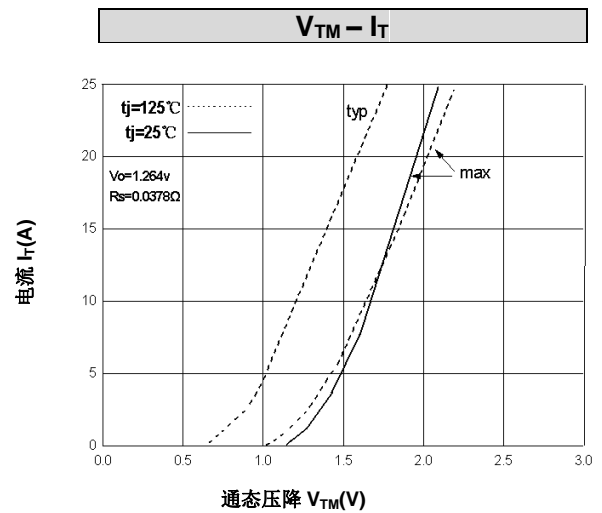
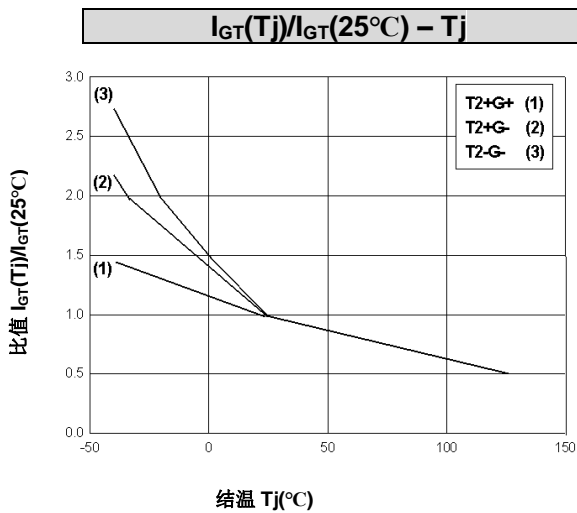
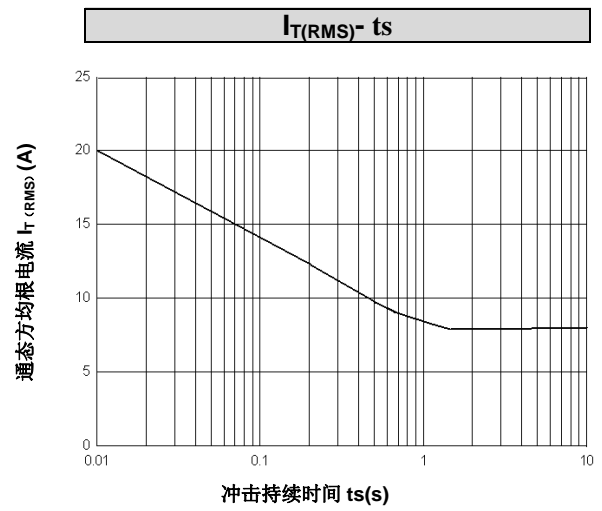
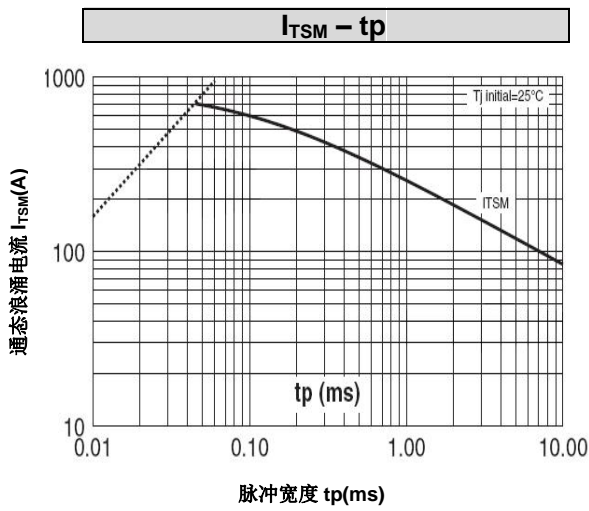
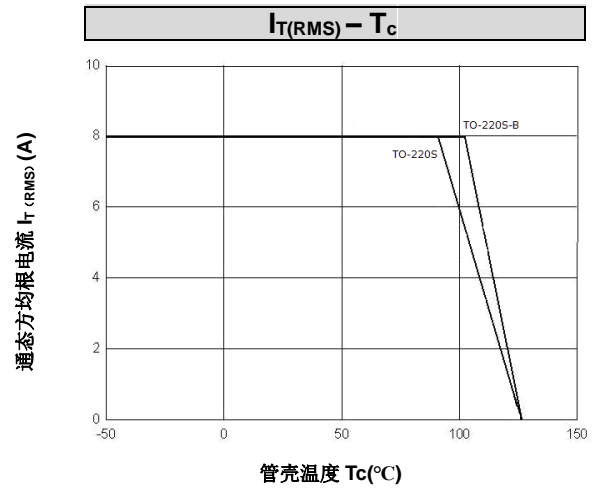
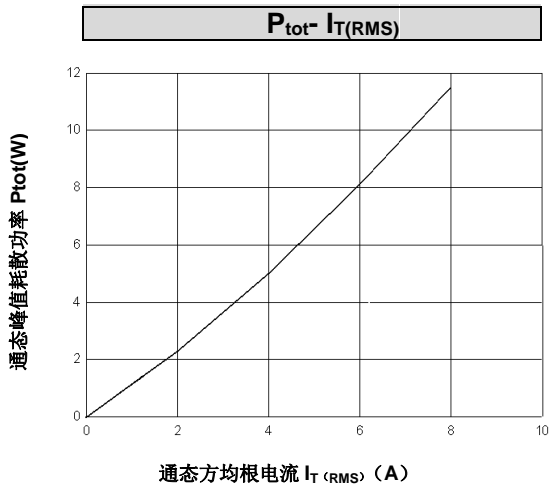
## 热特性 THERMAL CHARACTERISTIC

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 <sub>th(j-c)</sub>	full cycle(TO-220S)			2.8	°C/W
		full cycle(TO-220S-B)			1.9	°C/W





### 征曲线 ELECTRICAL CHARACTERISTICS (curves)

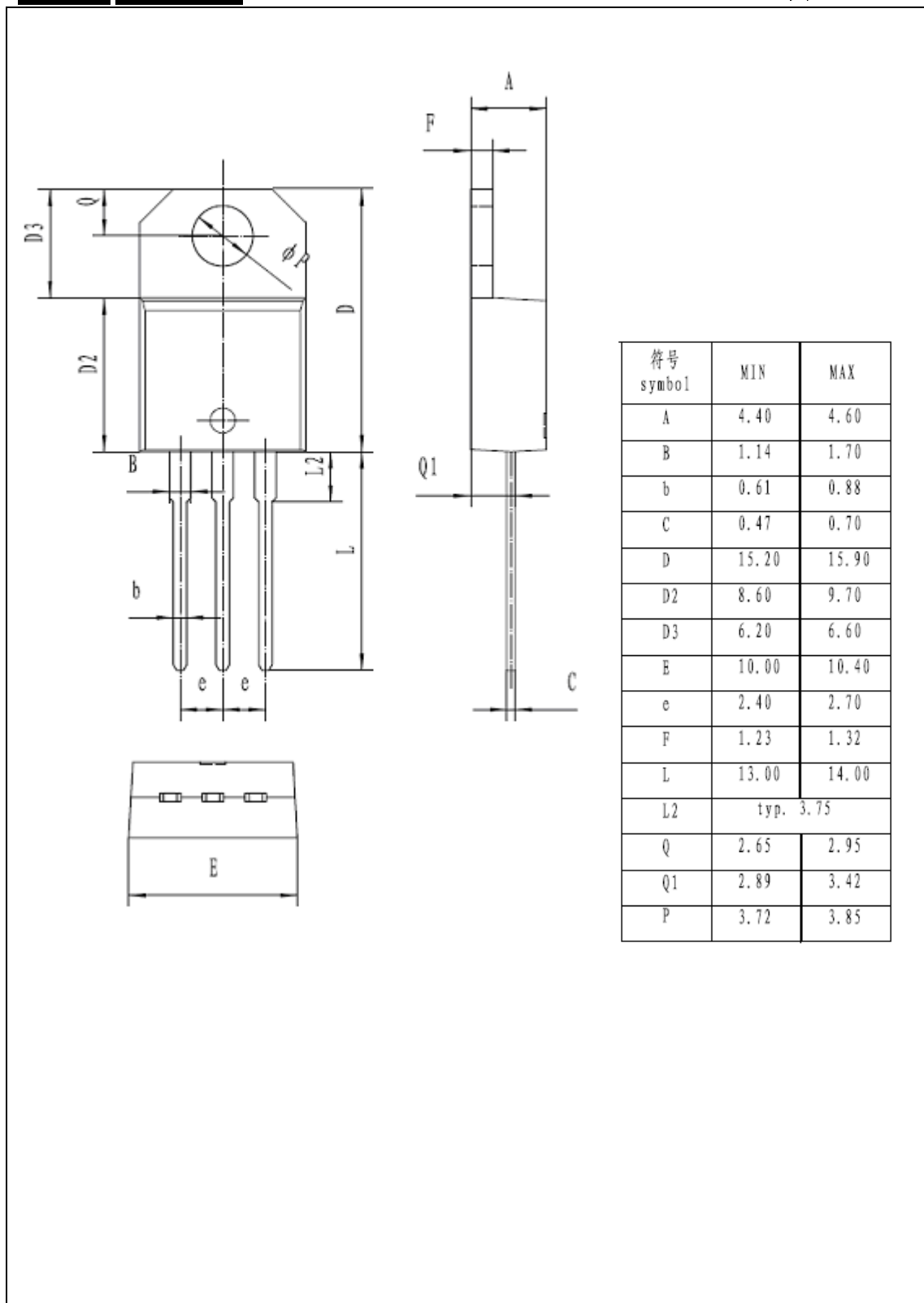




## 外形尺寸 PACKAGE MECHANICAL DATA

TO-220S TO-220S-B

单位 Unit : mm



**注意事项**

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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.
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