



CD1610H1/CD1625H1

主要参数 MAIN CHARACTERISTICS

$I_{T(AV)}$	16A
V_{DRM}/V_{RRM}	1000V
I_{GT}	10/25

用途

- 半交流开关
- 相位控制

产品特性

- 玻璃钝化芯片, 高可靠性和一致性
- 环保 RoHS 产品

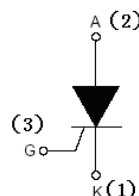
APPLICATIONS

- Half AC switching
- Phase control

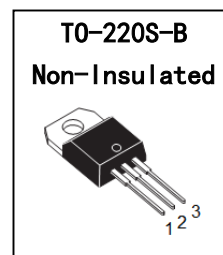
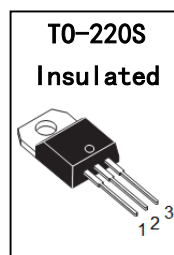
FEATURES

- Glass-passivated mesa chip for reliability and uniform
- RoHS products

封装 Package



序号 Pin	引线名称 Description
1	阴极 K
2	阳极 A
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-袋装 Halogen- Bag	无卤-袋装 Halogen-Free-Bag		
CD1610H1-CB-B	CD1610H1-CB-BR	N/A	N/A	CD1610H1	TO-220S
CD1625H1-CB-B	CD1625H1-CB-BR	N/A	N/A	CD1625H1	TO-220S
CD1610H1-CD-B	CD1610H1-CD-BR	N/A	N/A	CD1610H1	TO-220S-B
CD1625H1-CD-B	CD1625H1-CD-BR	N/A	N/A	CD1625H1	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	$V_{DRM}/$ V_{RRM}		1000	V
通态方均根电流 Average on-state current	$I_{T(AV)}$	half sine wave	16	A
均方均根电流 RMS On-state current	$I_{T(RMS)}$	all conduction angles	25	A
非重复浪涌峰值通态电流 Non- repetitive surge peak on-state current	I_{TSM}	full sine wave , $t=10\text{ms}$	250	A
	I^2t	$t=10\text{ms}$	312.5	A^2s
通态电流临界上升率 Repetitive rate of rise of on-state current after triggering	di/dt	$I_G=2 \times I_{GT}$	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	$P_{G(AV)}$		2.0	W
存储温度 Storage temperature	T_{stg}		-40~150	$^\circ\text{C}$
操作结温 Operation junction temperature	T_{VJ}		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	$I_{DRM}/$ I_{RRM}	$V_{DM}=V_{DRM}, V_{RM}=V_{RRM} T_j=125^\circ\text{C},$ gate open	-	-	4	mA
峰值通态电压 Peak on-state voltage	V_{TM}	$I_{TM}=40\text{A}$	-	-	1.6	V
门极触发电流 Gate trigger current	I_{GT}	CD1610H1: $V_{DM}=12\text{V}, R_L=100\ \Omega$	-	-	10	mA
		CD1625H1: $V_{DM}=12\text{V}, R_L=100\ \Omega$	-	-	25	mA
门极触发电压 Gate trigger voltage	V_{GT}	CD1610H1: $V_{DM}=12\text{V}, R_L=100\ \Omega$	-	0.8	1.5	V
		CD1625H1: $V_{DM}=12\text{V}, R_L=100\ \Omega$	-	0.8	1.5	V
维持电流 Holding current	I_H	CD1610H1: $I_T=0.5\text{A}$	-	-	30	mA
		CD1625H1: $I_T=0.5\text{A}$	-	-	60	mA
擎住电流 Latching current	I_L	CD1610H1: $V_{DM}=12\text{V}, I_{GT}=0.1\text{A}$	-	-	40	mA
		CD1625H1: $V_{DM}=12\text{V}, I_{GT}=0.1\text{A}$	-	-	70	mA
断态临界电压上升率 Rise of off- state voltage	dv/dt	$V_{DM}=67\% V_{DRM(MAX)},$ $T_j=125^\circ\text{C},$ gate open	1000	-	-	$\text{V}/\mu\text{s}$

**热特性 THERMAL CHARACTERISTIC**

项目 Parameter	封装 Package	最小 Min	典型 Typ	最大 Max	单位 Unit
结到管壳的热阻 Thermal resistance junction to case	TO-220S(INS)			2.2	°C/W
	TO-220S-B(Non-Ins)			1.1	°C/W

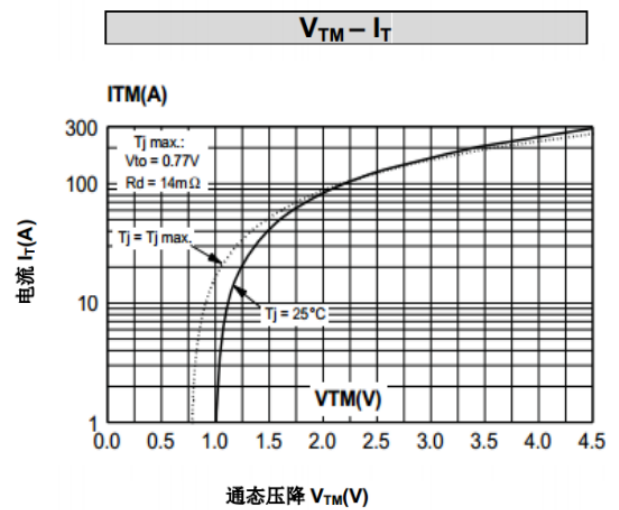
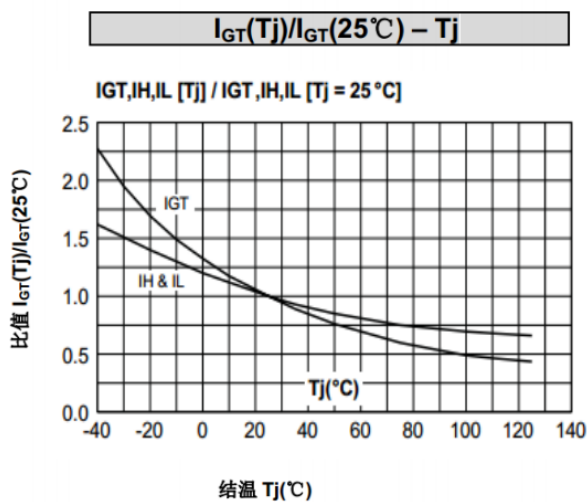
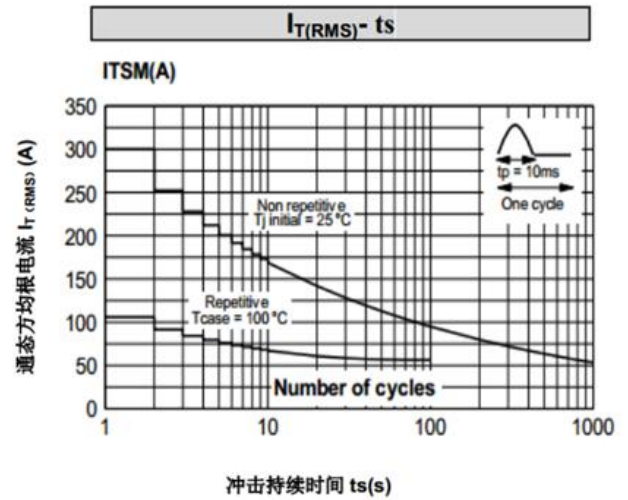
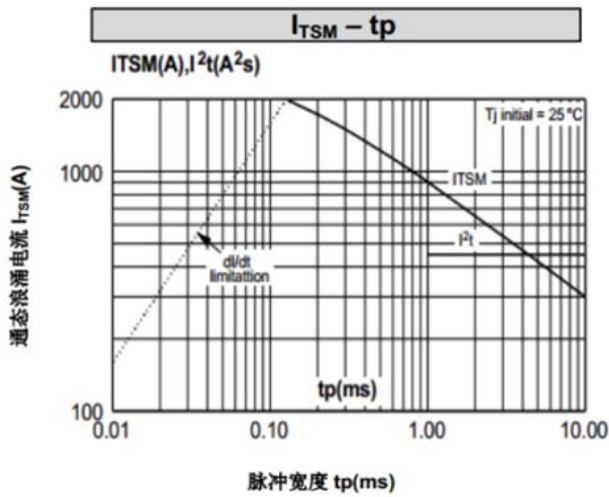
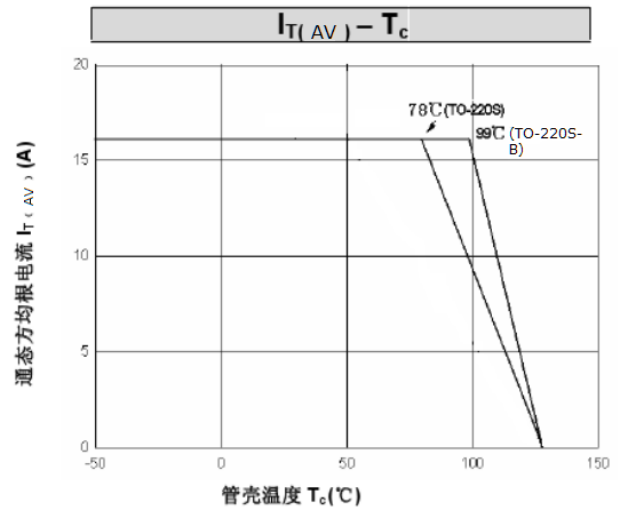
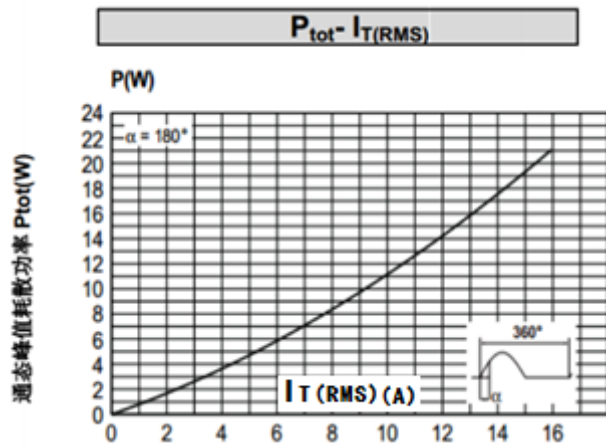
电绝缘特性 ELECTRICAL ISOLATION

项目 Parameter	符号 Symbol	条件 Condition	数值 Value	单位 Unit
绝缘电压 Isolation voltage	VISOL	1 minute, leads to mounting tab TO-220S	2000	V





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

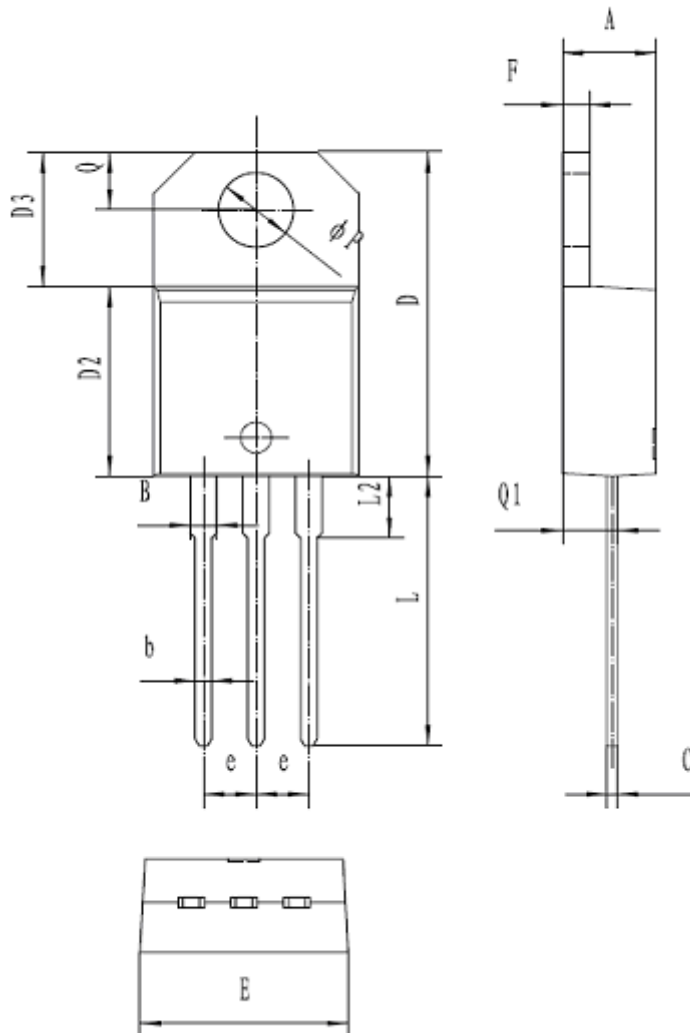




外形尺寸 PACKAGE MECHANICAL DATA

TO-220S(TO-220S-B)

单位 Unit : mm



符号 symbol	MIN	MAX
A	4.40	4.60
B	1.14	1.70
b	0.61	0.88
C	0.47	0.70
D	15.20	15.90
D2	8.60	9.70
D3	6.20	6.60
E	10.00	10.40
e	2.40	2.70
F	1.23	1.32
L	13.00	14.00
L2	typ. 3.75	
Q	2.65	2.95
Q1	2.89	3.42
P	3.72	3.85



注意事项

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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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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

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