



CD2635T3A/CD2650T3A

主要参数 MAIN CHARACTERISTICS

$I_{T(RMS)}$	26A
V_{DRM}/V_{RRM}	1200V
$I_{GT(1,2,3)}$ (CD2635T3A)	<35mA
$I_{GT(1,2,3)}$ (CD2650T3A)	<50mA

用途

- 交流开关
- 相位控制

APPLICATIONS

- AC switching
- Phase control

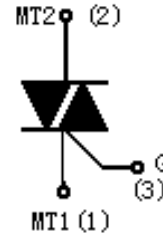
产品特性

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

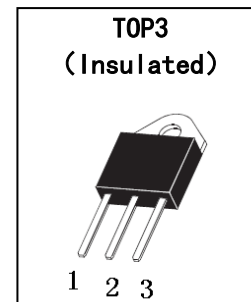
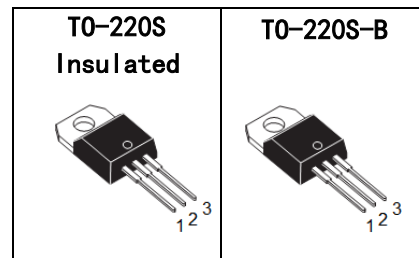
FEATURES

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

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		
CD2635T3A-GF-B	CD2635T3A-GF-BR	N/A	N/A	CD2635T3A	TOP3
CD2650T3A-GF-B	CD2650T3A-GF-BR	N/A	N/A	CD2650T3A	TOP3
CD2635T3A-CB-B	CD2635T3A-CB-BR	N/A	N/A	CD2635T3A	TO-220S
CD2650T3A-CB-B	CD2650T3A-CB-BR	N/A	N/A	CD2650T3A	TO-220S
CD2635T3A-CD-B	CD2635T3A-CD-BR	N/A	N/A	CD2635T3A	TO-220S-B
CD2650T3A-CD-B	CD2650T3A-CD-BR	N/A	N/A	CD2650T3A	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}		± 1200	V
通态方均根电流 On-state RMS current	$I_{\text{T(RMS)}}$	full sine wave,	26	A
非重复浪涌峰值通态电流 Non-repetitive surge peak on-state current	I_{TSM}	full sine wave, $t=20\text{ms}$	250	A
		full sine wave, $t=16.7\text{ms}$	260	A
		I^2t	$t=10\text{ms}$	340
通态电流临界上升率 Repetitive rate of rise of on-state current after triggering	di/dt	$I_{\text{TM}}=30\text{A}$, $I_{\text{G}}=0.2\text{A}$, $di_{\text{G}}/dt=0.2\text{A}/\mu\text{s}$	50	$\text{A}/\mu\text{s}$
峰值门极电流 Peak gate current	I_{GM}		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	1.0	W
存储温度 Storage temperature	T_{stg}		-40~150	$^\circ\text{C}$
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	-	-	3.0	mA
峰值通态电压 Peak on-state voltage	V_{TM}	$I_{\text{TM}}=30\text{A}$	-		1.6	V
门极开通时间 Gate controlled turn-on time	t_{gt}	$I_{\text{TM}}=20\text{A}$, $V_{\text{DM}}=V_{\text{DRM(MAX)}}$, $I_{\text{G}}=0.1\text{A}$, $di_{\text{G}}/dt=5\text{A}/\mu\text{S}$	-	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 TOP3	2000	V



电特性 ELECTRICAL CHARACTERISTIC (T_c=25°C)

项目 Parameter	符号 Symbol	测试条件 Condition			CD2635 T3A	CD2650 T3A	单位 Unit
门极触发电流 Gate trigger current	I _{GT}	V _{DM} =12V, R _L =100Ω	I - II - III	MAX	35	50	mA
门极触发电压 Gate trigger voltage	V _{GT}		ALL	MAX	1.5	1.5	V
维持电流 Holding current	I _H	V _{DM} =12V, I _{GT} =0.1A		MAX	60	80	mA
擎住电流 Latching current	I _L	V _{DM} =12V, I _{GT} =0.1A	I - III	MAX	70	90	mA
			II	MAX	90	120	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	1000	1000	V/μs

热特性 THERMAL CHARACTERISTIC

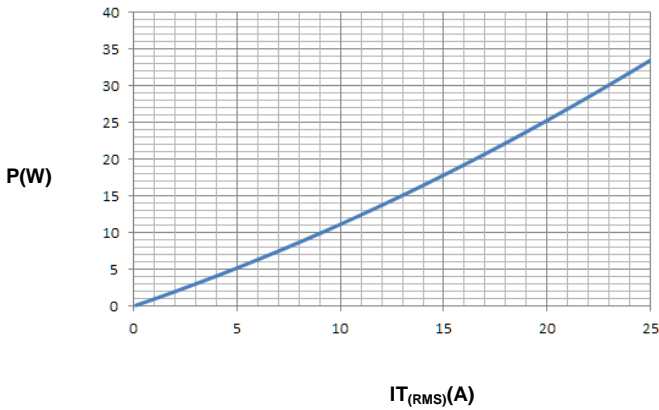
项目 Parameter	符号 Symbol	条件 Condition	最小 Min	典型 Typ	最大 Max	单位 Unit
结到管壳的热阻 Thermal resistance junction to case	R _{th(j-c)}	full cycle(TOP3)			1.0	°C/W
		full cycle(TO-220S-B)			1.1	°C/W
		full cycle(TO-220S)			1.5	°C/W



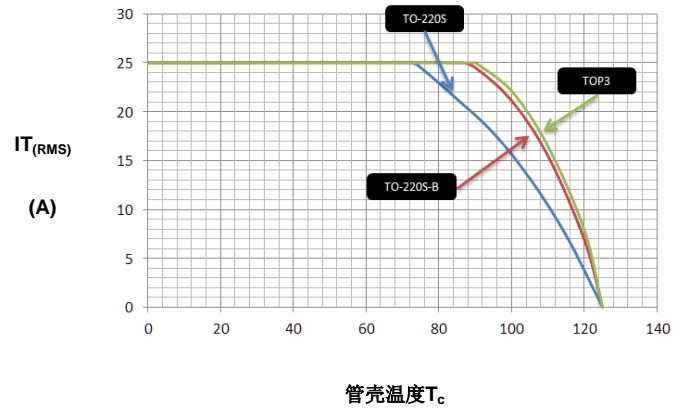


特征曲线ELECTRICAL CHARACTERISTICS (curves)

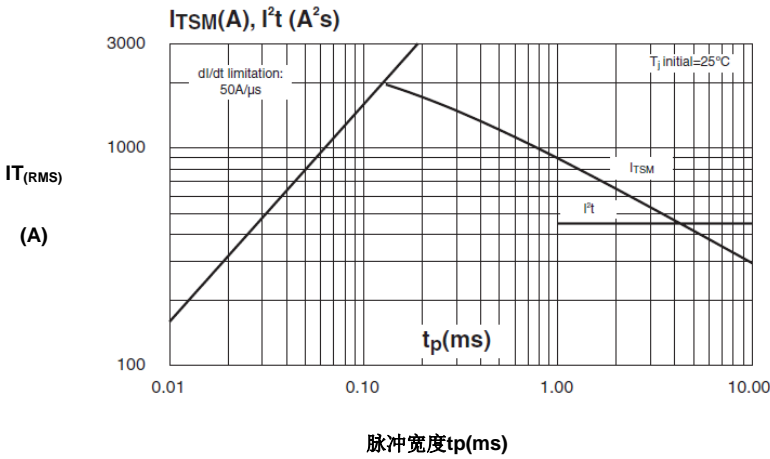
$P_{tot} - I_{T(RMS)}$



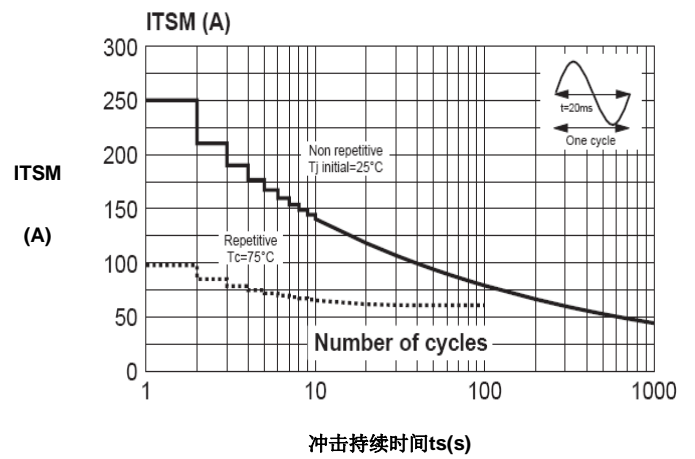
$I_{T(RMS)} - T_c$



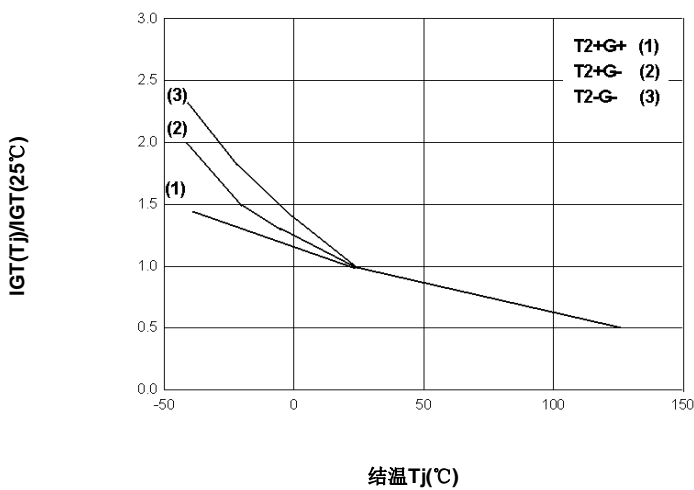
$I_{TSM} - t_p$



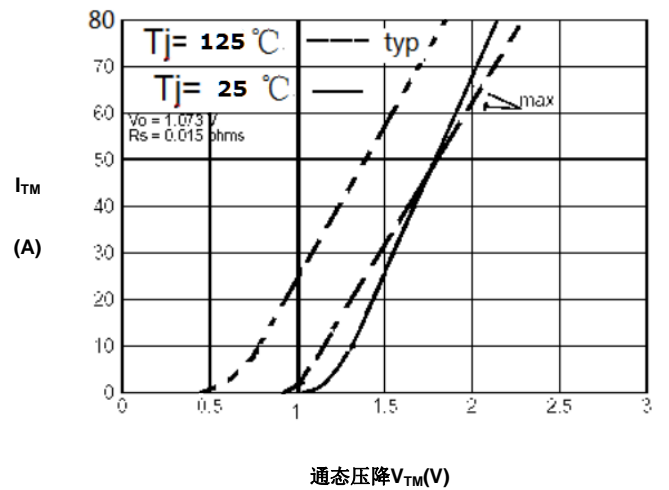
$I_{T(RMS)} - t_s$



$I_{GT}(T_j)/I_{GT}(25^\circ C) - T_j$



$V_{TM} - I_{TM}$

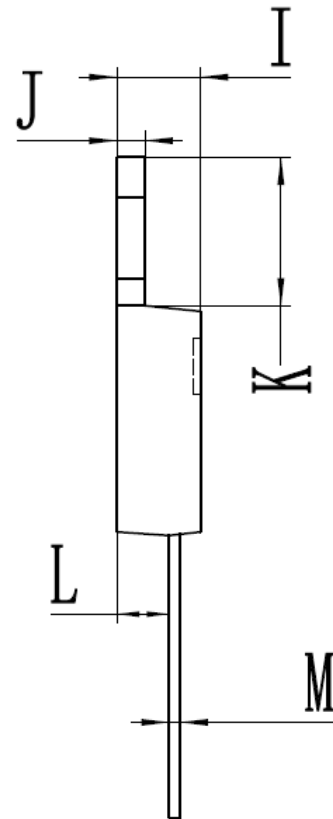
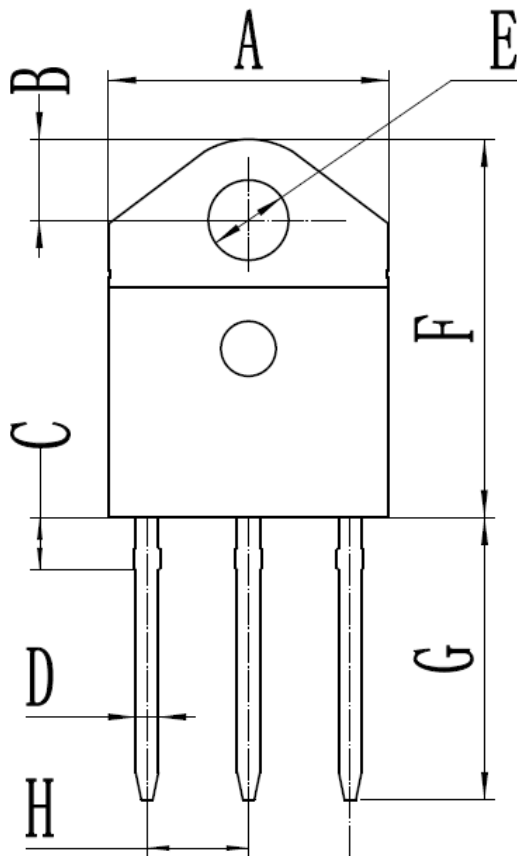




外形尺寸 PACKAGE MECHANICAL DATA

TOP3

单位 Unit : mm



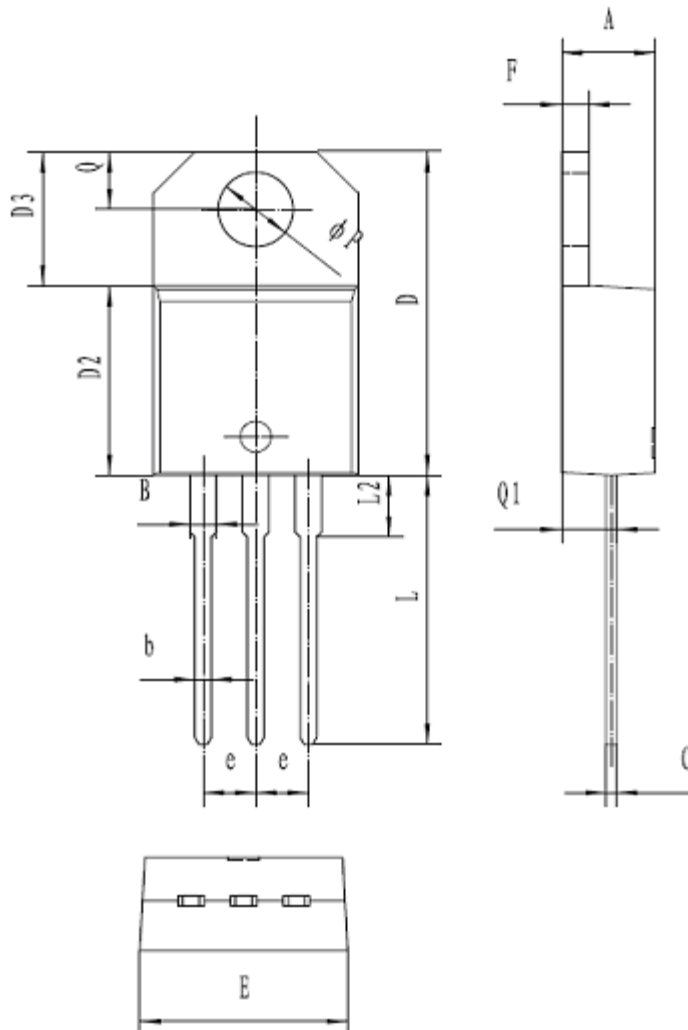
SYMBOL	MM	
	MIN	MAX
A	14.80	15.45
B	4.00	4.70
C	2.45	3.25
D	1.10	1.35
E	4.10	4.35
F	20.15	20.80
G	14.95	15.60
H	5.30	5.65
I	4.35	4.70
J	1.38	1.65
K	7.80	8.25
L	2.68	3.00
M	0.50	0.75





外形尺寸PACKAGE MECHANICAL DATA

TO-220STO-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

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。
2. 购买时请认清公司商标，如有疑问请与公司本部联系。
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

1. Jilin Sino-microelectronics co., Ltd sales its product either through direct sales or sales agent , thus, for customers, when ordering, please check with our company.
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

