



T1635NZP

主要参数 MAIN CHARACTERISTICS

$I_{T(RMS)}$	16A
V_{DRM}	800V
I_{GT}	20mA

用途

- 交流开关
- 相位控制

APPLICATIONS

- AC switching
- Phase control

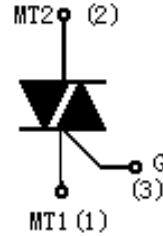
产品特性

- 平面工艺芯片，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

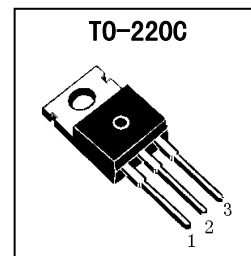
FEATURES

- The planar process 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 code	印记 Marking	封装 Package	包装 Packaging
T1635NZP-O-C-N-B	T1635NZP	TO-220C	条管 Tube



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,	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=20ms	140	A
		full sine wave ,t=16.7ms	150	A
	I^2t	t=10ms	98	A^2s
通态电流临界上升率 Repetitive rate of rise of on-state current after triggering	dl/dt	$I_{\text{TM}}=20\text{A}$, $I_{\text{G}}=0.2\text{A}$, $dl_{\text{G}}/dt=0.2\text{A}/\mu\text{s}$	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}		-40~150	$^\circ\text{C}$
操作结温 Operation junction temperature	T_{VJ}		-40~150	$^\circ\text{C}$



电特性 ELECTRICAL CHARACTERISTIC (T_C=25°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 _{DM} =V _{DRM} , T _j =150°C, gate open		--	1.0	mA
峰值通态电压 Peak on-state voltage	V _{TM}	I _{TM} =18A, T _j =25°C,		--	1.5	V
门极触发电流 Gate trigger current	I _{GT}	V _{DM} =12V, MT1(-),MT2(+),G(+)		--	20	mA
		R _L =100 Ω MT1(-),MT2(+),G(-)		--	20	mA
		Ω MT1(+),MT2(-),G(-)		--	20	mA
门极触发电压 Gate trigger voltage	V _{GT}	V _{DM} =12V, MT1(-),MT2(+),G(+)		0.7	1.0	V
		R _L =100 Ω MT1(-),MT2(+),G(-)		0.7	1.5	V
		Ω MT1(+),MT2(-),G(-)		0.7	1.5	V
维持电流 Holding current	I _H	V _{DM} =12V, I _{GT} =0.1A		--	20	mA
擎住电流 Latching current	I _L	V _{DM} =12V, MT1(-),MT2(+),G(+)		-	30	mA
		I _{GT} =0.1A 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 _{DM} =67% V _{DRM(MAX)} , T _j =150°C, gate open	1000	-	-	V/μs
门极开通时间 Gate controlled turn-on time	t _{gt}	I _{TM} =20A, V _{DM} =V _{DRM(MAX)} , I _G =0.1A, dI _G /dt=5A/μs	-	2	-	μs

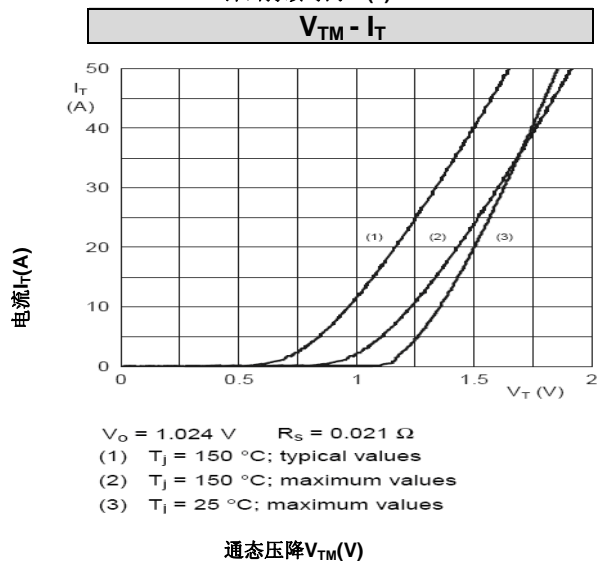
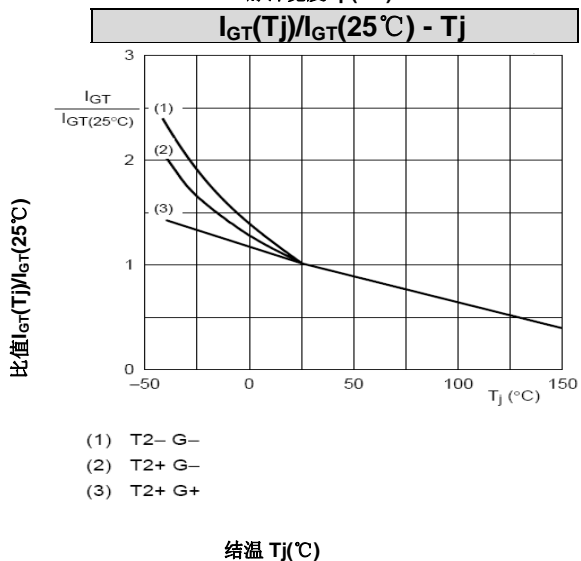
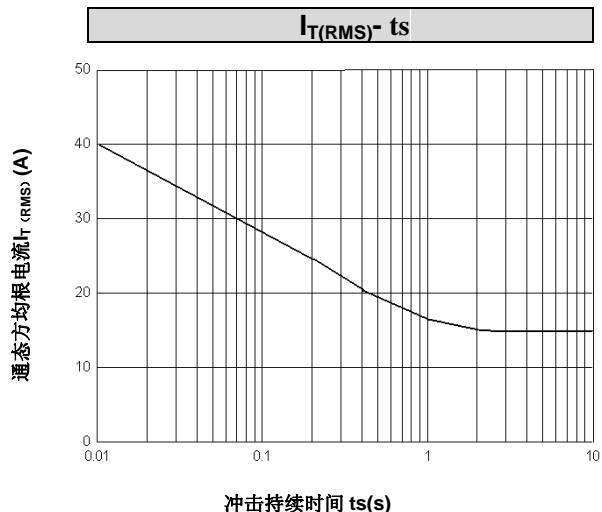
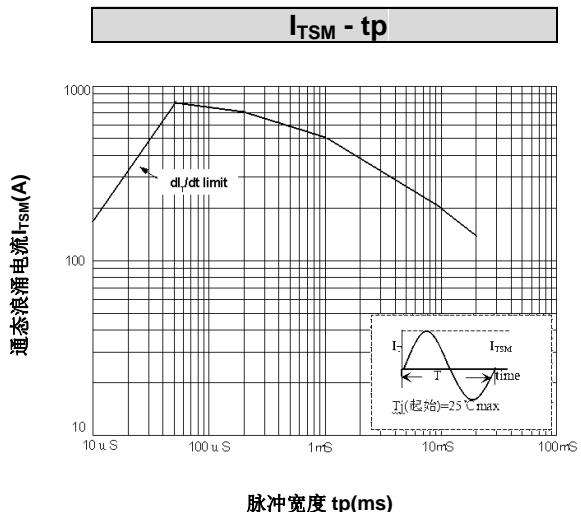
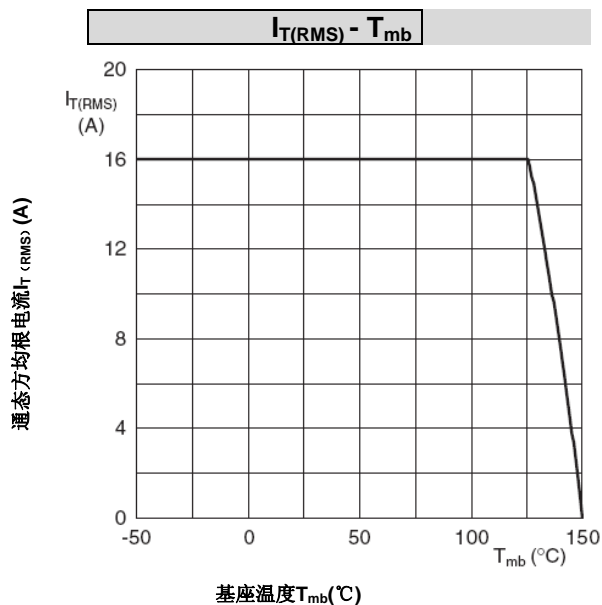
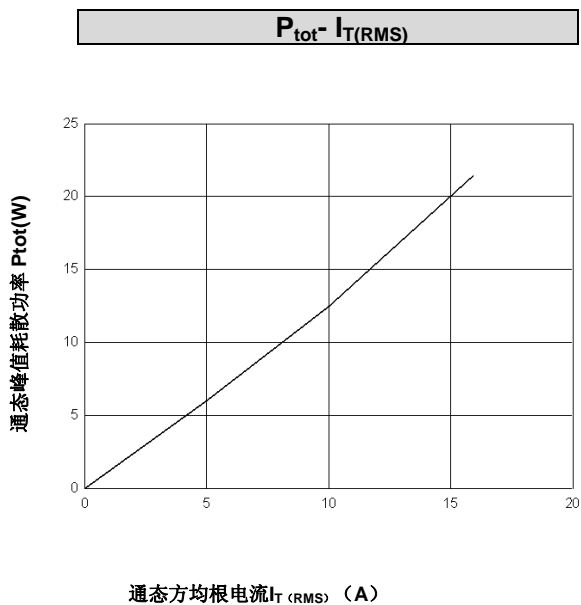
热特性 THERMAL CHARACTERISTIC

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 _{th(j-c)}	full cycle(TO-220C)			1.2	°C/W





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

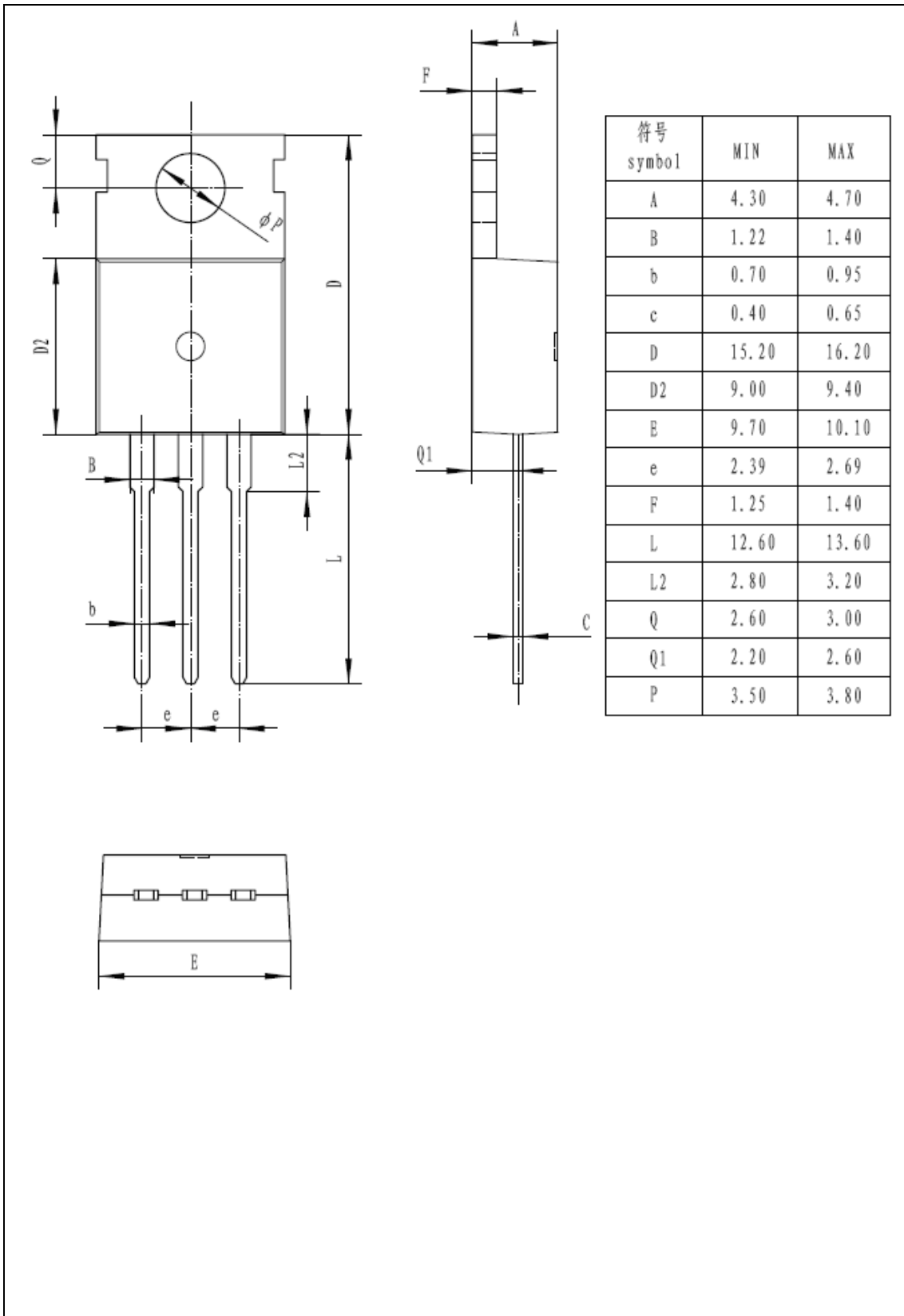




外形尺寸 PACKAGE MECHANICAL DATA

TO-220C

单位 Unit : mm



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4. 本说明书如有版本变更不另外告知

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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

