

TYN625		
	单向可控硅 THYRISTOR	版本号 201603-A

产品概述 GENERAL DESCRIPTION

TYN625 单向可控硅采用穿通隔离台面结构，复合玻璃钝化PN结表面保护工艺技术，dv/dt高，可靠性高，适用于控温、调光、马达控制。

TYN625 Thyristor is fabricated using separation diffusion processes ,the junction termination areas are passivated with glass. Thanks to highly dv/dt and reliability,the Triacs series is suitable for domestic lighting ,heating and motor speed controllers.

主要参数 MAIN CHARACTERISTICS

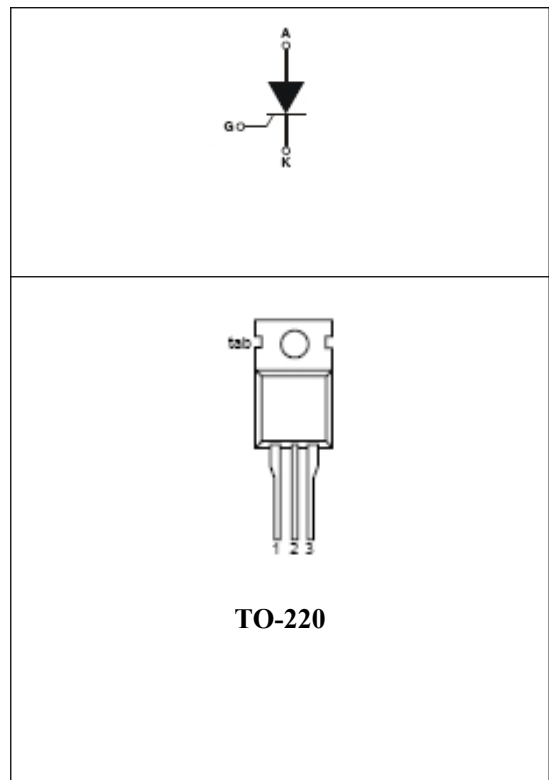
参数 Parameter	数值 Value	单位 Unit
$I_{T(RMS)}$	25	A
V_{DRM}/V_{RRM}	600/800	V
I_{GT}	40	mA

产品特性

- dv/dt高
- 通态压降低
- Rohs环保产品

FEATURES

- Highly dv/dt
- Low on-state voltage
- Rohs Products



应用领域 APPLICATIONS

主要应用于调光、控温、马达控制。

domestic lighting ,heating and motor speed controllers.

极限值(除非另有规定, T_j=25°C) ABSOLUTE RATINGS

(T_j=25°C, unless otherwise specified)

符号 Symbol	参数 Parameter	数值 Value	单位 Unit
I _{T(RMS)}	RMS 通态电流 RMS on-state current (full sine wave)	T _C =100°C 25	A
I _{T(av)}	额定通态电流 Average on-state current(180° conduction angle)	T _C =100°C 16	A
I _{TSM}	通态峰值浪涌电流 Non repetitive surge peak on-state current	F=50Hz, t=10ms 300	A
I ² t	I ² t 耗散值 I ² t value for fusing	T _P =10ms 450	A ² s
di/dt	通态电流上升值 Critical rate of rise of on-state current	F=120Hz, T _j =125°C 50	A/μs
I _{GM}	门极峰值电流 Peak gate current	T _P =20μs, T _j =125°C 4	A
P _{G(AV)}	平均门极耗散功率 Average gate power dissipation	T _j =125°C 1	W
T _{stg}	贮存结温范围 Storage junction temperature range	-40+150	°C
T _j	工作结温范围 Operating junction temperature range	-40+125	°C

电参数(除非另有规定, T_j=25°C) ELECTRICAL CHARACTERISTICS

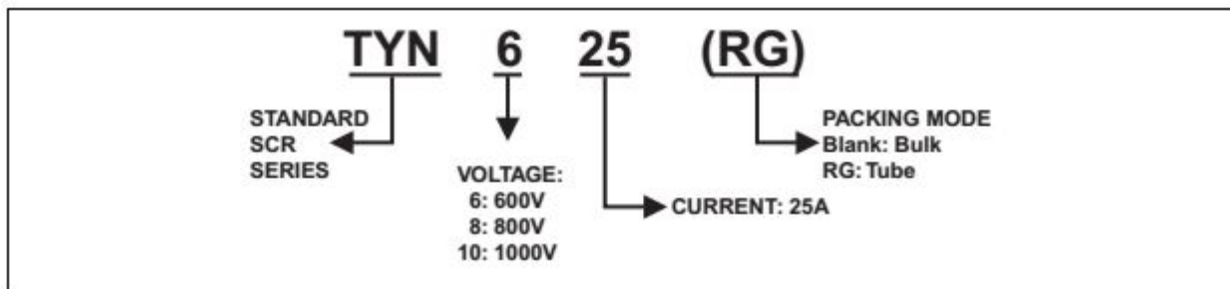
(T_j=25°C, unless otherwise specified)

参数 Parameter	符号 Symbol	规范值 Value			单位 Unit	测试条件 Test Conditions
		Min	Typ	Max		
触发电流 Gate trigger current	I _{GT}	2	-	40	mA	V _D =12V, I _T =0.1A
触发电压 Gate trigger voltage	V _{GT}	-	-	1.5	V	V _D =12V, I _T =0.1A
维持电流 Holding current	I _H	-	-	50	mA	V _D =12V, I _T =0.1A
电压上升率 Rise of off- state voltage	dv/dt	400	-	-	V/μS	V _D =67%V _{DRM}
通态压降 Peak on-state voltage	V _{TM}	-	-	1.7	V	I _T =50A
断态漏电流 Peak repetitive forward blocking current	I _{DRM}	-	-	5	μA	V _{RRM} =V _{DRM} , T _j = 25°C
	I _{RRM}	-	-	2	mA	V _{RRM} =V _{DRM} , T _j =125°C

热特性 THERMAL RESISTANCES

符号 Symbol	参数 Parameter	数值 Value	单位 Unit
Rth(j-c)	Junction to case(AC)	1.0	°C/W
Rth(j-a)	Junction to ambient	60	°C/W

ORDERING INFORMATION



特征曲线 ELECTRICAL CHARACTERISTICS (CURVES)

图1 最大耗散功率与平均通态电流关系

Fig.1.Maximum Power Dissipation Versus Average On-state Current

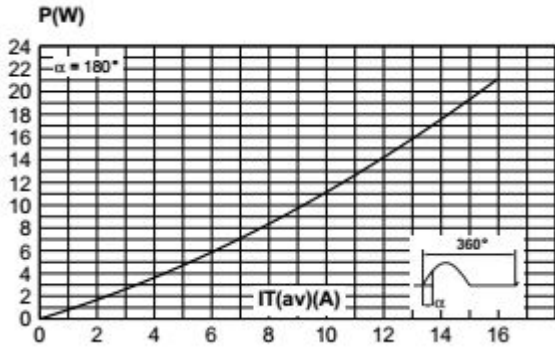


图2 额定通态电流与Tc温度关系

Fig.2. IT(AV) On-state Current Versus TL

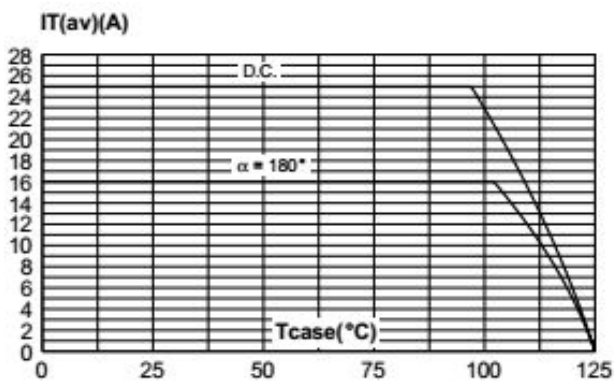


图3 通态特性

Fig.3.On-State Characteristics

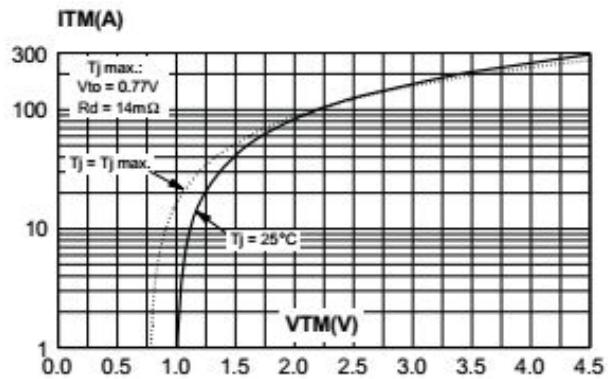


图4 通态浪涌峰值电流与周期数关系

Fig.4.Surge Peak On-state Current Versus Number Cycles

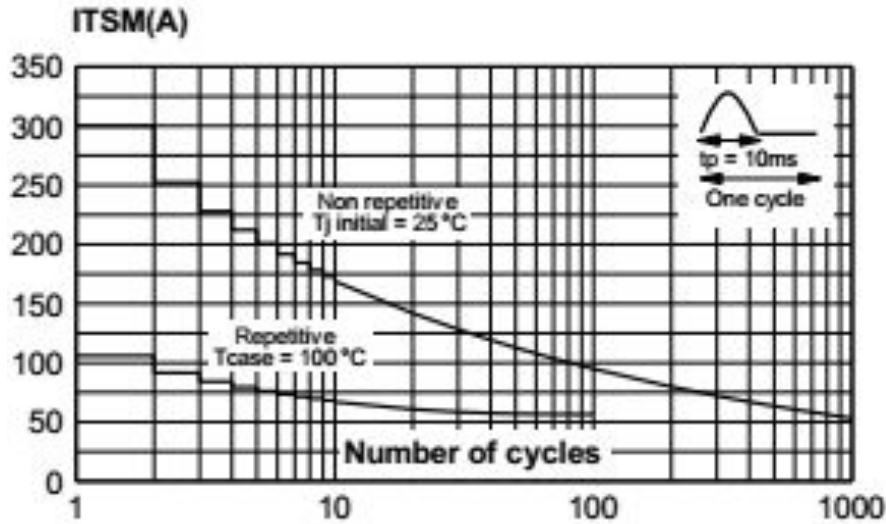
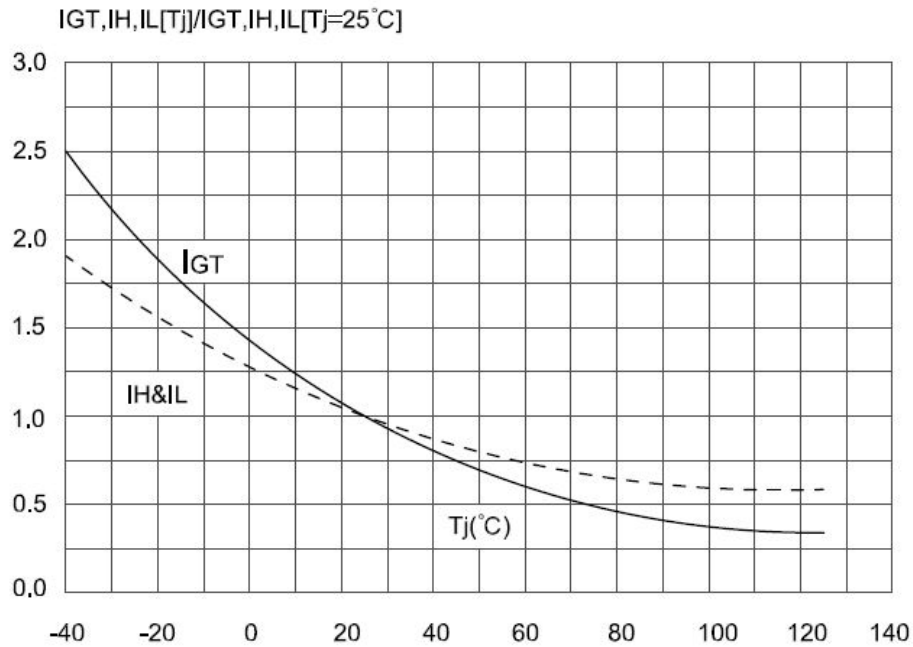


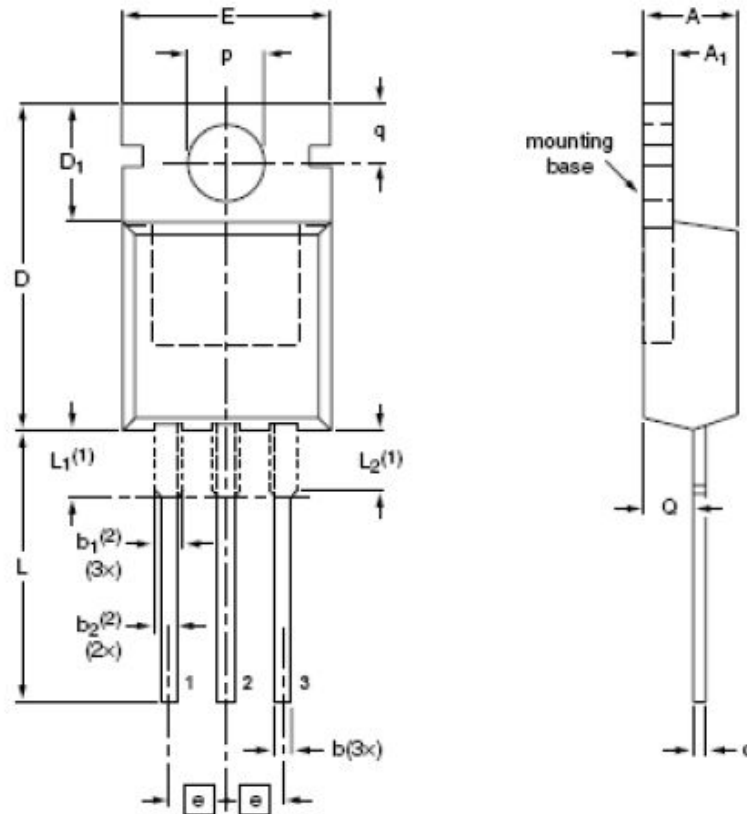
图5 IGT、IH、IL相对值（相对于25°C）与结温关系

Fig.5.Relative Variation Of Gate Trigger Current, Holding Current And Latching Current Versus Junction Temperature (Typical Value)



封装尺寸 PACKAGE MECHANICAL DATA

TO-220



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁	b	b ₁ (2)	b ₂ (2)	c	D	D ₁	E	e	L	L ₁ (1)	L ₂ (1) max.	p	q	Q
mm	4.7 4.1	1.40 1.25	0.9 0.6	1.6 1.0	1.3 1.0	0.7 0.4	16.0 15.2	6.6 5.9	10.3 9.7	2.54	15.0 12.8	3.30 2.79	3.0	3.8 3.5	3.0 2.7	2.6 2.2

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