

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	V
I_{GT}	≤ 40	mA

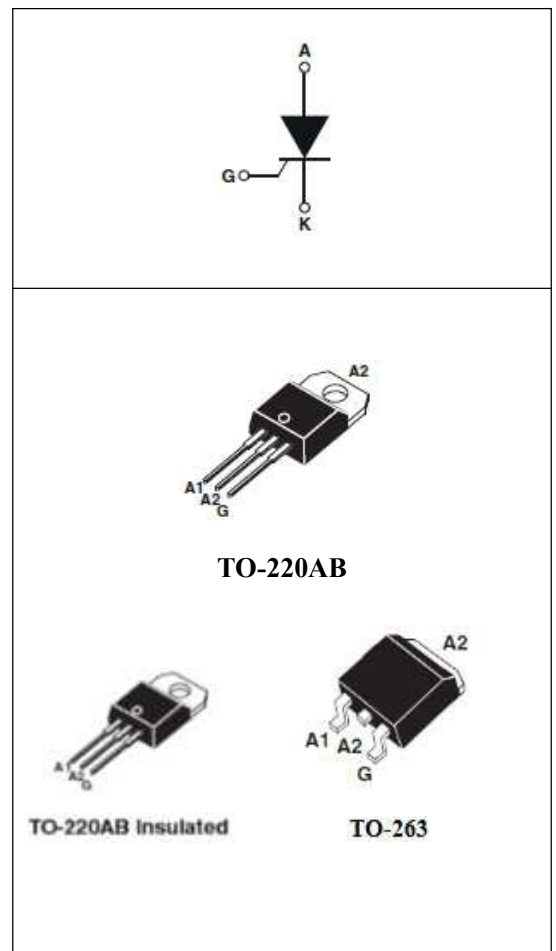
产品特性 FEATURES

- dv/dt高
- 通态压降低
- Rohs环保产品
- 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℃) ABSOLUTE RATINGS

(T_j=25℃, 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℃ 25	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=60Hz, T _j =125℃ 50	A/μs
I _{GM}	门极峰值电流 Peak gate current	T _p =20μs, T _j =125℃ 3.5	A
P _{G(AV)}	平均门极耗散功率 Average gate power dissipation	T _j =125℃ 0.8	W
T _{stg}	贮存结温范围 Storage junction temperature range	-40+150	℃
T _j	工作结温范围 Operating junction temperature range	-40+125	℃

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

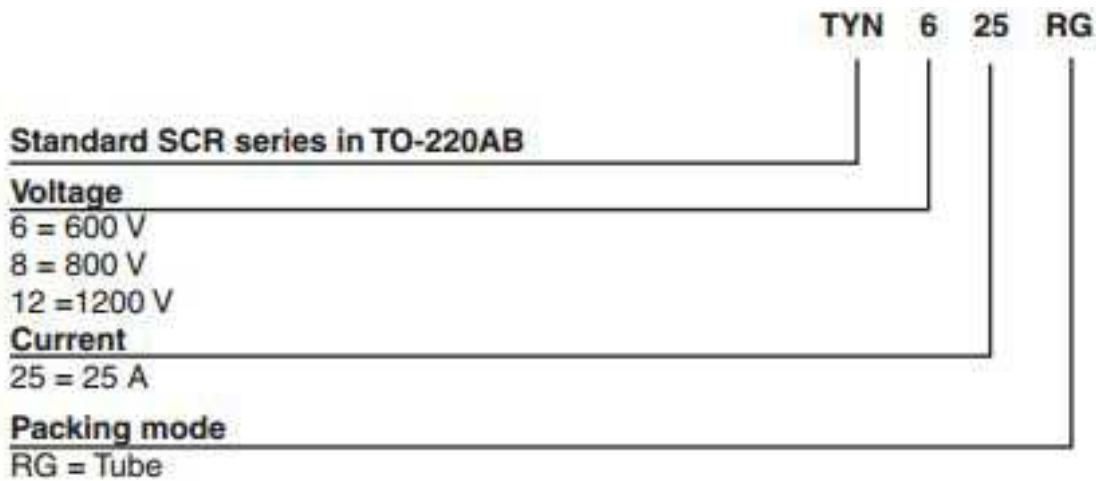
(T_j=25℃, unless otherwise specified)

参数 Parameter	符号 Symbol	规范值 Value	单位 Unit	测试条件 Test Conditions
触发电流 Gate trigger current	I _{GT}	≤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
擎住电流 Latching current	I _L	≤90	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}	≤1.6	V	I _T =50A
断态漏电流 Peak repetitive forward blocking current	I _{DRM}	≤10	μA	V _{RRM} =V _{DRM} , T _j = 25℃
	I _{RRM}	≤4	mA	V _{RRM} =V _{DRM} , T _j =125℃

热特性 THERMAL RESISTANCES

符号 Symbol	参数 Parameter		数值 Value	单位 Unit
Rth(j-c)	Junction to case(AC)	TO-220AB	1.4	°C/W
		TO-220AB Insulated	2.5	
		TO-263	0.8	
Rth(j-a)	Junction to ambient	TO-220AB	60	°C/W
		TO-220AB Insulated	60	
		TO-263	45	

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

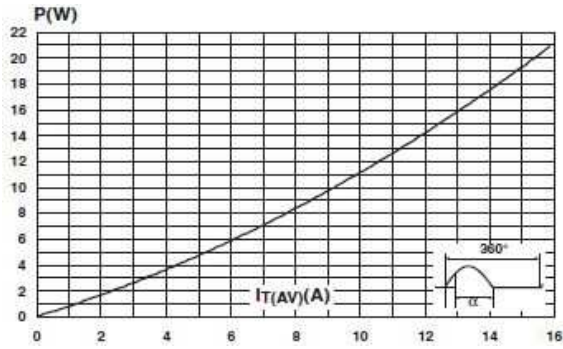


图3 通态特性

Fig.3.On-State Characteristics

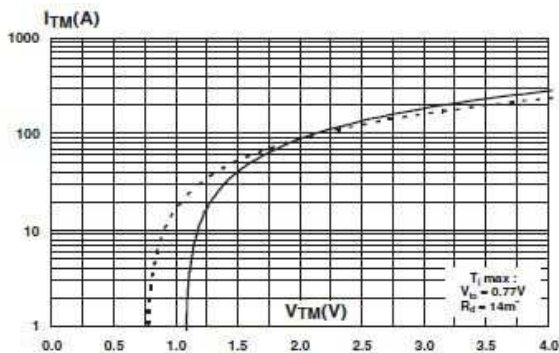


图2 平均通态电流与Tc温度关系

Fig.2. $I_{T(av)}$ On-state Current Versus T_L

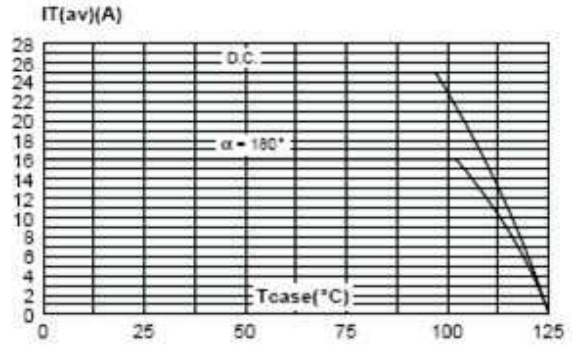


图4 通态浪涌峰值电流与周期数关系

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

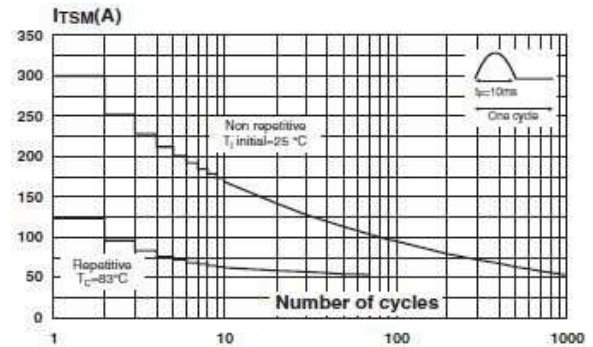
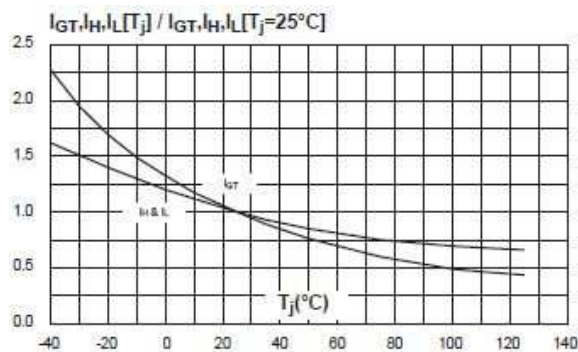


图5 I_{GT} 、 I_H 、 I_L 相对值（相对于25°C）与结温关系

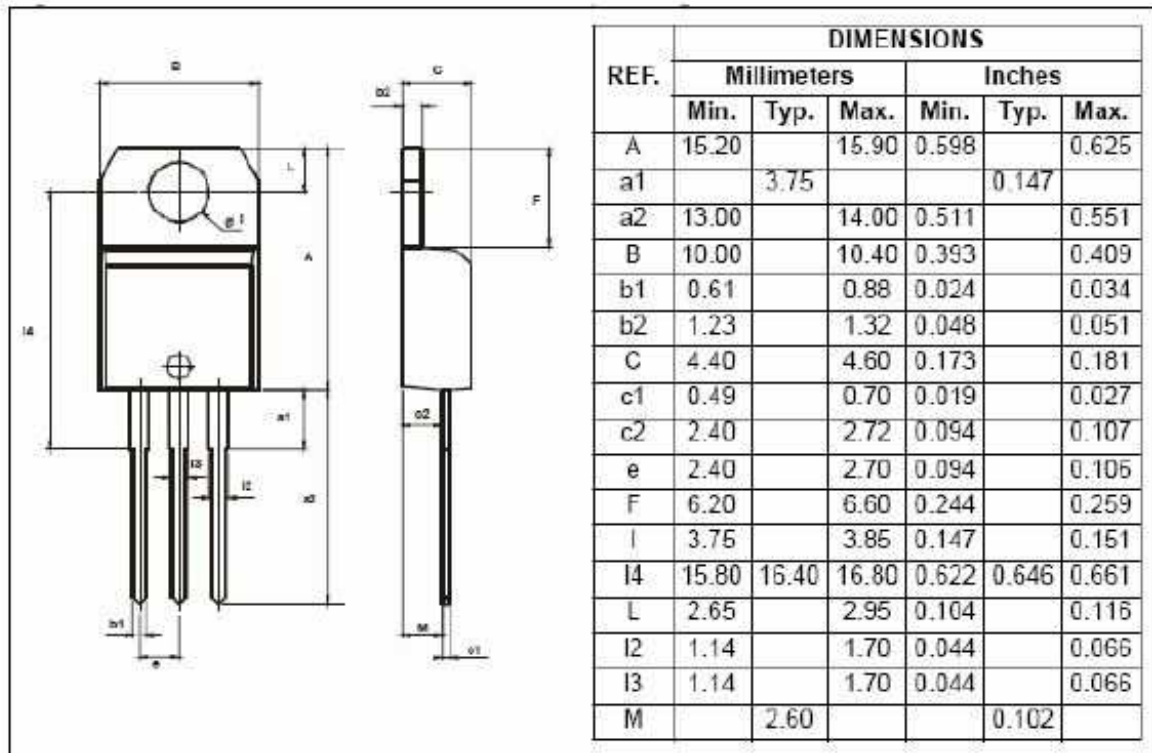
Fig.5.Relative Variation Of Gate Trigger Current

, Holding Current And Latching Current Versus Junction Temperature (Typical Value)



封装尺寸 PACKAGE MECHANICAL DATA

TO-220AB AND TO-220AB Insulated



TO-263

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.30		4.60	0.169		0.181
A1	2.49		2.69	0.098		0.106
A2	0.03		0.23	0.001		0.009
B	0.70		0.93	0.027		0.037
B2	1.25	1.40		0.048	0.055	
C	0.45		0.60	0.017		0.024
C2	1.21		1.36	0.047		0.054
D	8.95		9.35	0.352		0.368
E	10.00		10.28	0.393		0.405
G	4.88		5.28	0.192		0.208
L	15.00		15.85	0.590		0.624
L2	1.27		1.40	0.050		0.055
L3	1.40		1.75	0.055		0.069
R	0.40			0.016		
V2	0°		8°	0°		8°

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