

<h2 style="margin: 0;">TYN616</h2>		
	单向可控硅 THYRISTOR	版本号 201603-A

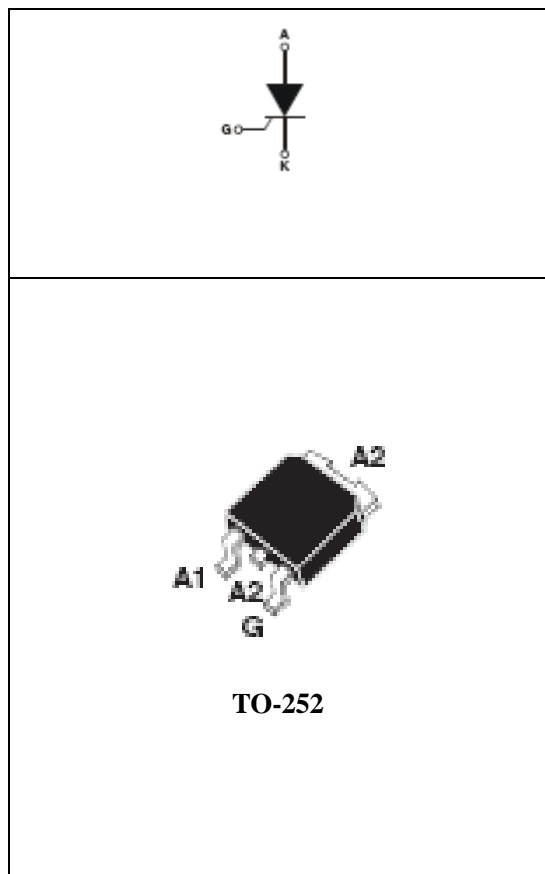
产品概述 GENERAL DESCRIPTION

TYN616 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。

TYN616 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
$I_{T(RMS)}$	16	A
V_{DRM}/V_{RRM}	600	V
I_{GT}	15	mA



产品特性 FEATURES

- | | |
|---|---|
| <ul style="list-style-type: none"> ● dv/dt高 ● 通态压降低 ● Rohs环保产品 | <ul style="list-style-type: none"> ● 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 =90℃ 16	A
I _{TSM}	通态峰值浪涌电流 Non repetitive surge peak on-state current	F=50Hz, t=20ms 160	A
I ² t	I ² t 耗散值 I ² t value for fusing	T _P =10ms 60	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℃ 50	A/μs
I _{GM}	门极峰值电流 Peak gate current	T _P =20μs, T _j =125℃ 4	A
P _{G(AV)}	平均门极耗散功率 Average gate power dissipation	T _j =125℃ 1	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
		Min	Typ	Max		
触发电流 Gate trigger current	I _{GT}	-	-	15	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	50	-	-	V/μS	V _D =67% V _{DRM}
通态压降 Peak on-state voltage	V _{TM}	-	-	1.7	V	I _T =24A
断态漏电流 Peak repetitive forward blocking current	I _{DRM}	-	-	5	μA	V _{RRM} =V _{DRM} , T _j = 25 ℃
	I _{RPM}	-	-	2	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
R _{th(j-c)}	Junction to case(AC)	3	℃/W
R _{th(j-a)}	Junction to ambient	75	℃/W

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

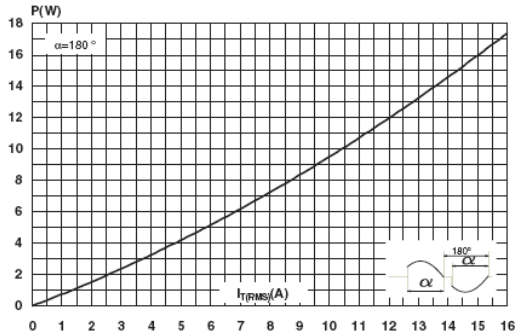


图2 RMS通态电流与Tc温度关系

Fig.2. RMS On-state Current Versus TL

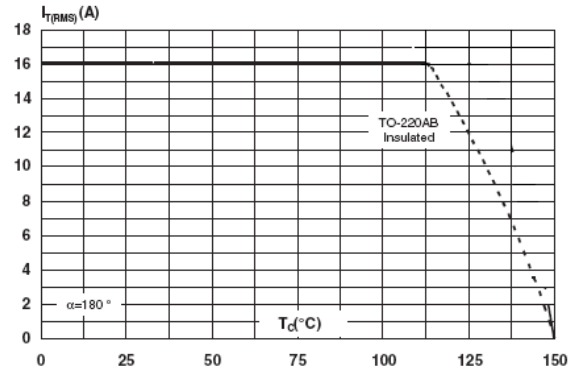


图3 通态特性

Fig.3.On-State Characteristics

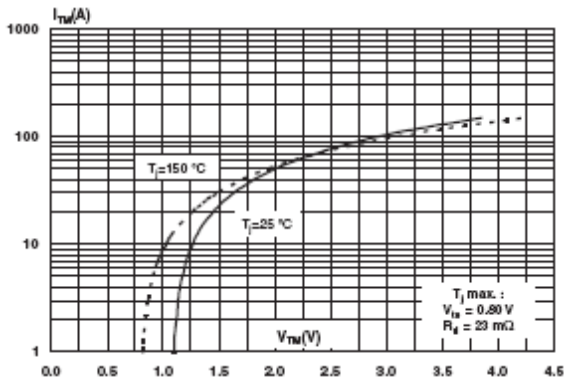


图4 通态浪涌峰值电流与周期数关系

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

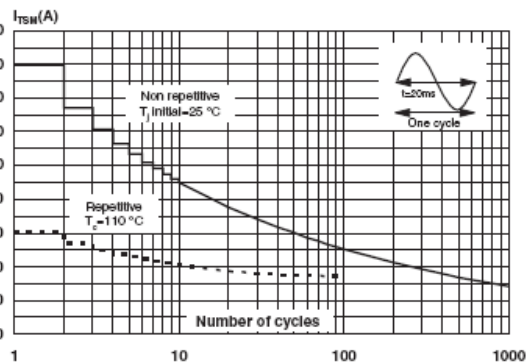
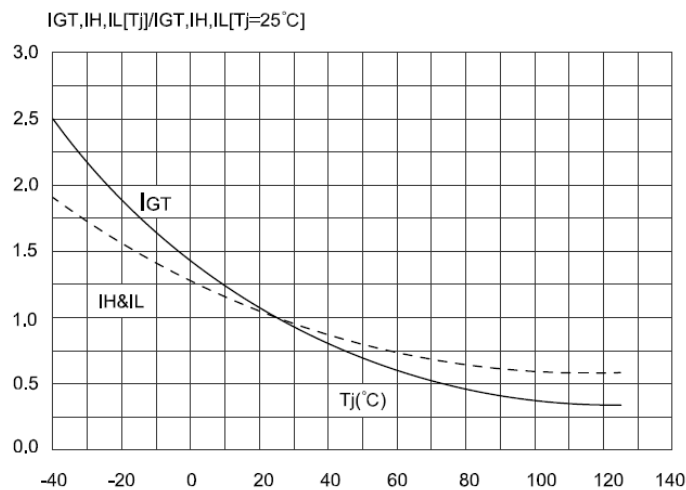


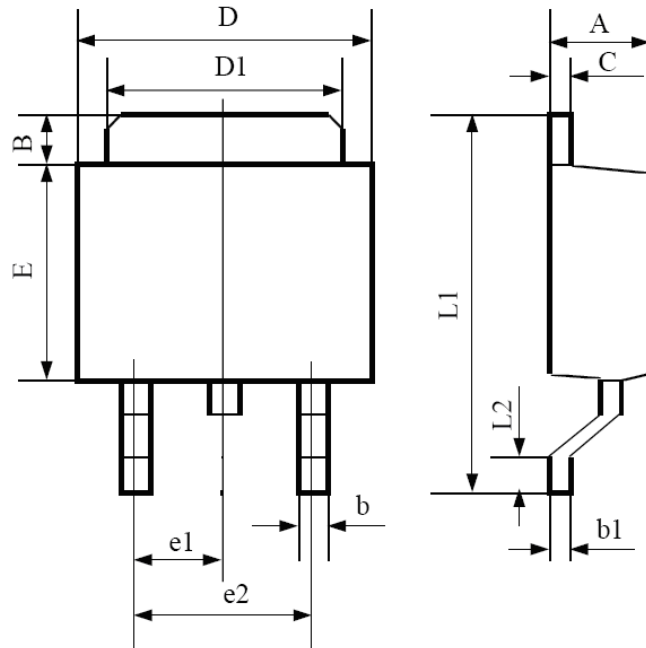
图5 I_{GT}、I_H、I_L相对值（相对于25℃）与结温关系

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-252



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	2.20	2.40	0.087	0.094
B	1.35	1.65	0.053	0.065
b	0.50	0.70	0.02	0.028
b1	0.45	0.56	0.017	0.022
C	0.46	0.56	0.018	0.022
D	6.35	6.65	0.25	0.262
D1	5.20	5.40	0.205	0.212
E	5.80	6.10	0.228	0.240
e1	2.25	2.35	0.089	0.093
e2	4.50	4.70	0.177	0.185
L1	9.80	10.40	0.386	0.409
L2	0.95	1.45	0.037	0.057

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