

T8xx		
	双向可控硅 TRIAC	版本号 201603-A

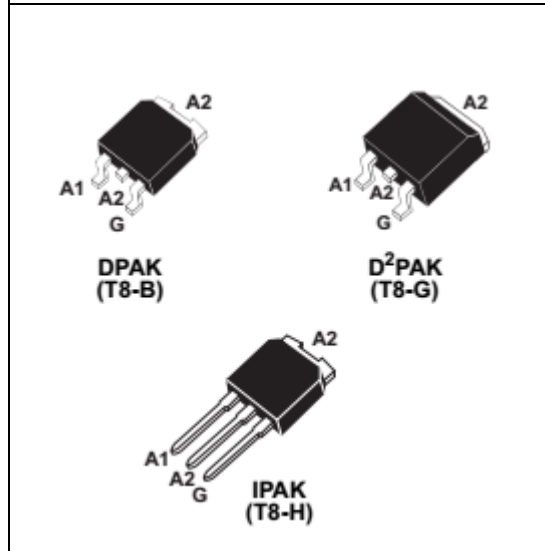
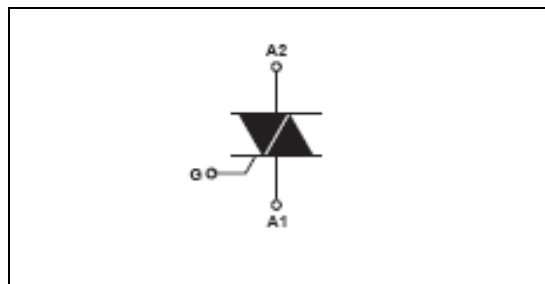
产品概述 GENERAL DESCRIPTION

T8xx 双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。

T8xx Triacs 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
$I_{T(RMS)}$	8	A
V_{DRM}/V_{RRM}	600&800	V
$I_{GT(III)}$	≤ 35	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, $T_j=25^\circ\text{C}$) ABSOLUTE RATINGS

 ($T_j=25^\circ\text{C}$, 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)	$T_C=110^\circ\text{C}$ 8	A
I_{TSM}	通态峰值浪涌电流 Non repetitive surge peak on-state current	$F=50\text{Hz}, t=20\text{ms}$ 60	A
I^2t	I^2t 耗散值 I^2t value for fusing	$T_P=10\text{ms}$ 36	A^2s
di/dt	通态电流上升值 Critical rate of rise of on-state current	$F=120\text{Hz}, T_j=125^\circ\text{C}$ 50	$\text{A}/\mu\text{s}$
I_{GM}	门极峰值电流 Peak gate current	$TP=20\mu\text{s}, T_j=125^\circ\text{C}$ 4	A
$P_{G(AV)}$	平均门极耗散功率 Average gate power dissipation	$T_j=125^\circ\text{C}$ 1	W
Tstg	贮存结温范围 Storage junction temperature range	-40+150	$^\circ\text{C}$
T_j	工作结温范围 Operating junction temperature range	-40+150	$^\circ\text{C}$

电参数(除非另有规定, $T_j=25^\circ\text{C}$) ELECTRICAL CHARACTERISTICS

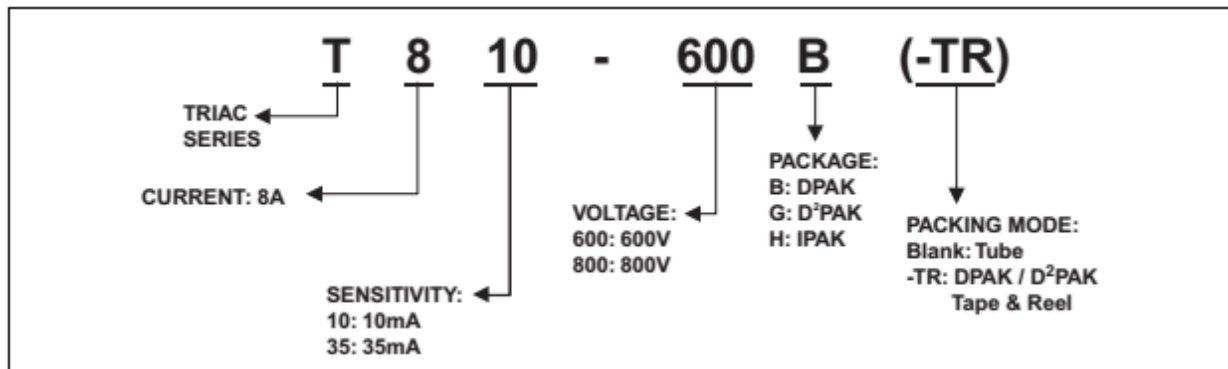
 ($T_j=25^\circ\text{C}$, unless otherwise specified)

参数 Parameter	符号 Symbol	规范值 Value		单位 Unit	测试条件 Test Conditions
		T810	T835		
触发电流 Gate trigger current	I_{GT}	I ~ III 10	35	mA	$V_D=12\text{V}, I_T=0.1\text{A}$
触发电压 Gate trigger voltage	V_{GT}	I ~ III ≤ 1.5		V	$V_D=12\text{V}, I_T=0.1\text{A}$
维持电流 Holding current	I_H	15	35	mA	$V_D=12\text{V}, I_T=0.1\text{A}$
擎住电流 Latching current	I_L	25	50	mA	$V_D=12\text{V}, I_T=0.1\text{A}$
电压上升率 Rise of off- state voltage	dv/dt	40	400	$\text{V}/\mu\text{S}$	$V_D=67\% V_{DRM}$
通态压降 Peak on-state voltage	V_{TM}	≤ 1.6		V	$I_T=10\text{A}$
断态漏电流 Peak repetitive forward blocking current	I_{DRM}	≤ 5		μA	$V_{RRM}=V_{DRM}, T_j=25^\circ\text{C}$
	I_{RRM}	≤ 1		mA	$V_{RRM}=V_{DRM}, T_j=125^\circ\text{C}$

热特性 THERMAL RESISTANCES

符号 Symbol	参数 Parameter	数值 Value	单位 Unit	
Rth(j-c)	Junction to case(AC)	IPAK	1.6	°C/W
		DPAK	1.6	
		D ² PAK	1.6	
Rth(j-a)	Junction to ambient	IPAK	100	°C/W
		DPAK	70	
		D ² PAK	45	

ORDERING INFORMATION



特征曲线 ELECTRICAL CHARACTERISTICS (CURVES)

图1 最大耗散功率与RMS通态电流关系
Fig.1.Maximum Power Dissipation Versus on-state current

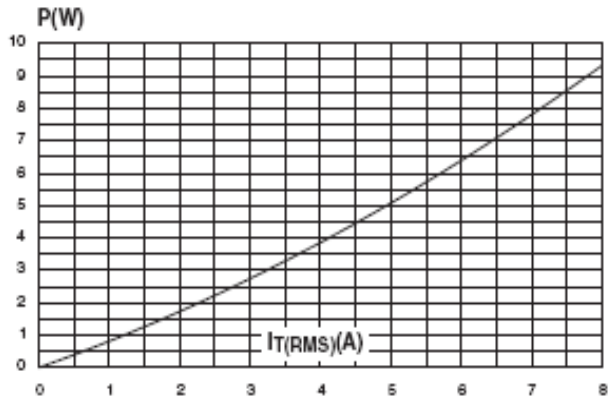


图2 RMS通态电流与Tc温度关系
Fig.2. RMS On-state Current Versus TL

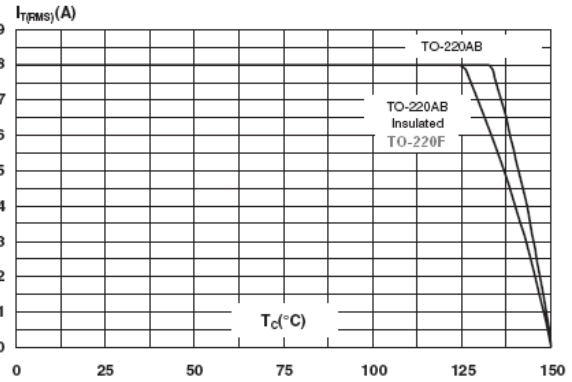


图3 通态特性
Fig.3.On-State Characteristics

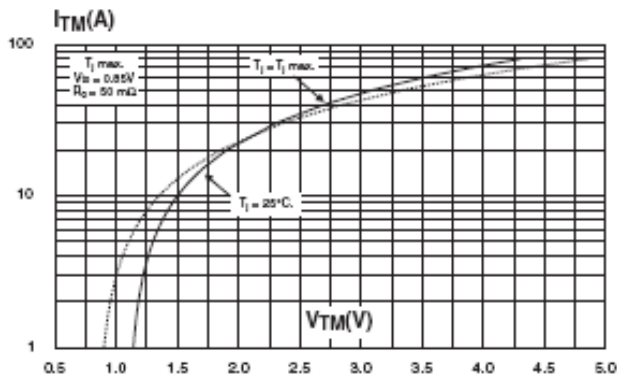


图4 通态浪涌峰值电流与周期数关系
Fig.4.Surge Peak On-state Current Versus Number Cycles

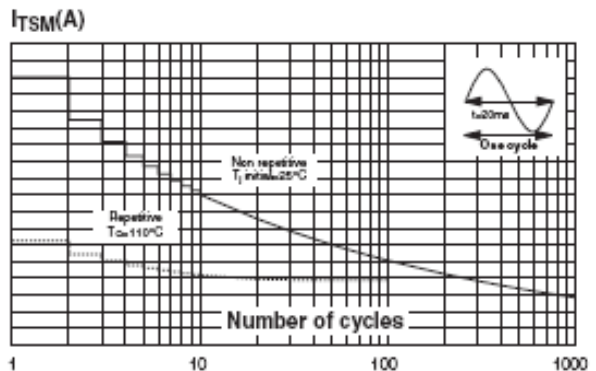
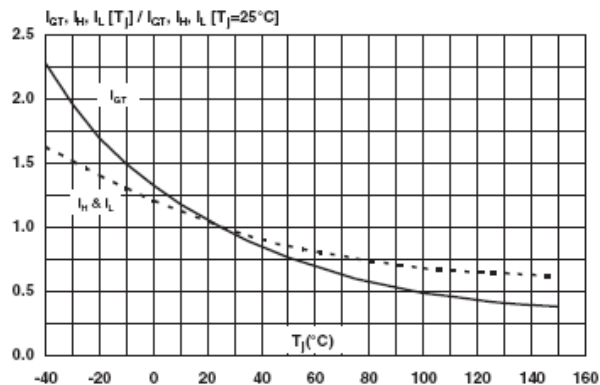
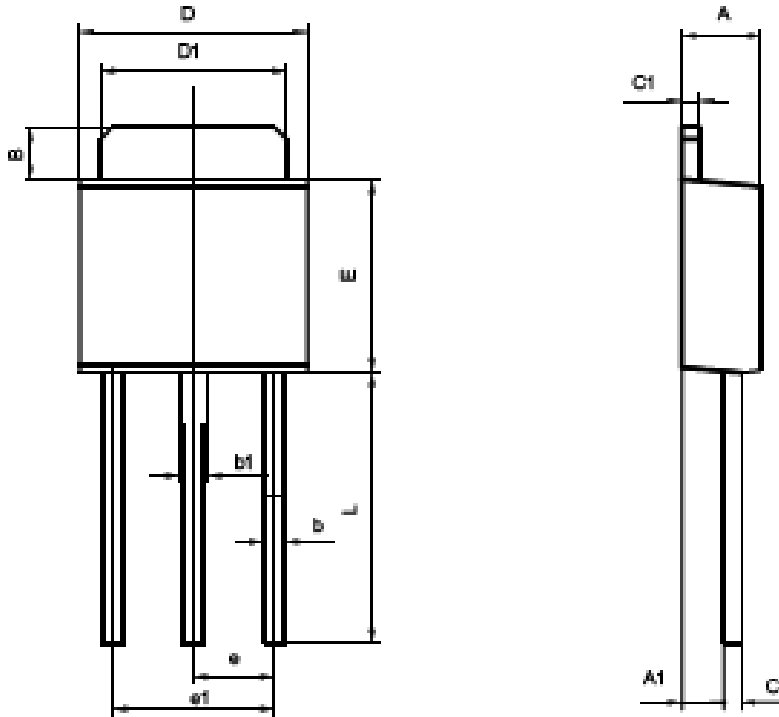


图5 IGT、IH、IL相对值（相对于25°C）与结温关系
Fig.5.Relative Variation Of Gate Trigger Current, Holding Current And Latching Current Versus Junction Temperature (Typical Value)



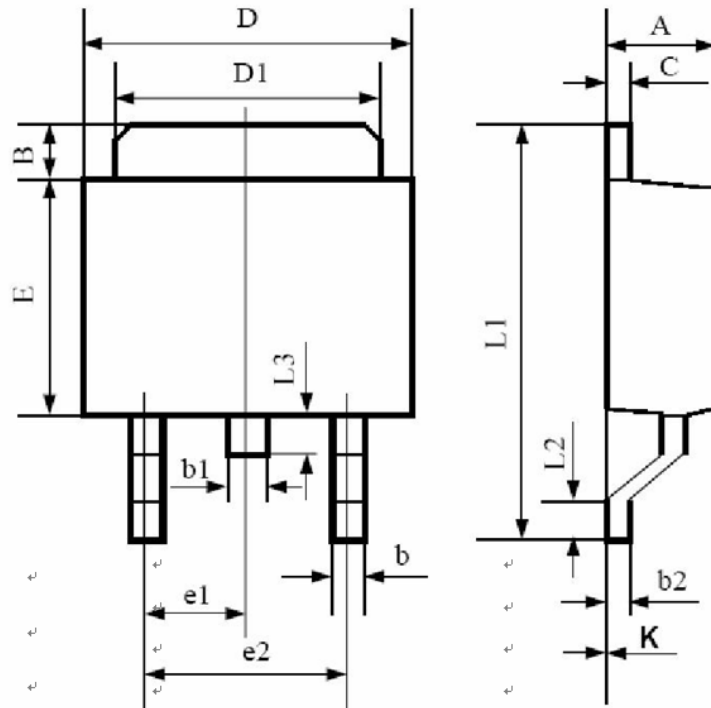
封装尺寸 PACKAGE MECHANICAL DATA

IPAK



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	2.200	2.400	0.087	0.094
A1	1.100	1.300	0.043	0.051
B	1.350	1.650	0.053	0.065
b	0.500	0.700	0.020	0.028
b1	0.700	0.900	0.028	0.035
e	0.480	0.580	0.019	0.023
e1	0.480	0.580	0.019	0.023
D	6.350	6.650	0.250	0.262
D1	5.200	5.400	0.205	0.213
E	5.400	5.800	0.213	0.234
e	2.300TYP		0.091TYP	
e1	4.500	4.700	0.177	0.185
L	7.500	7.900	0.295	0.311

DPAK



符号	公制尺寸		英制尺寸	
	最小	最大	最小	最大
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	0.70	0.90	0.028	0.035
b2	0.46	0.56	0.018	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	10.30	0.386	0.406
L2	0.95	1.45	0.037	0.057
L3	0.8	1.10	0.031	0.043
K	-0.1	0.00	-0.004	0.000

D²PAK

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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