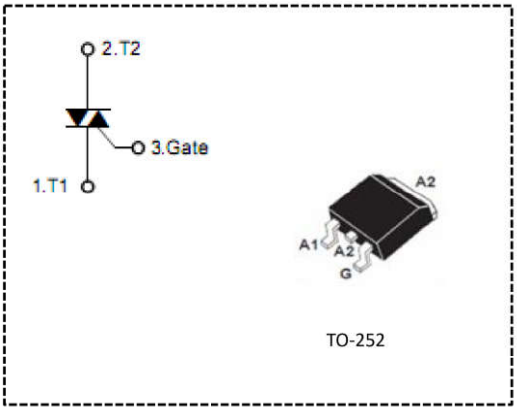
◆用 途

主要用于调光、调温等调压电路，微波炉、洗衣机、电风扇、饮水机、夜明灯等家电的控制电路及用于交流相控、斩波器、逆变器、变频器和固态继电器等电路中

◆特 征

采用先进的玻璃钝化工艺，较低的通态压降，高的可靠性、稳定性



◆极限值

名　　称	符 号	规范值	单 位	测试条件
重复峰值阻断电压	V_{DRM}	600/800	V	I_{DRM}=20μA
通态电流	$I_{T(RMS)}$	4	A	正弦波 180°
浪涌电流	I_{TSM}	45	A	正弦波,60Hz
结温	T_j	125	℃	
贮存温度	T_{stg}	-40~150	℃	

◆电特性

名　　称		符 号	测 试 条 件		Min	Max	单位
通态电压		V_{TM}	I_T=10A		----	1.65	V
维持电流	Ⅰ	I_H	V_D=12V,I_{GT}=100mA		----	10	mA
	Ⅱ				----	10	
门极触发电流	Ⅰ	I_{GT}	T2(+),G(+)	V_D=12V, R_L=100Ω	----	10	mA
	Ⅱ		T2(+),G(-)		----	10	mA
	Ⅲ		T2(-),G(-)		----	10	mA
	Ⅳ		T2(-),G(+)		----	----	mA
门极触发电压	Ⅰ	V_{GT}	T2(+),G(+)	V_D=12V, R_L=100Ω	----	1.5	V
	Ⅱ		T2(+),G(-)		----	1.5	V
	Ⅲ		T2(-),G(-)		----	1.5	V
	Ⅳ		T2(-),G(+)		----	----	V
断态电压临界上升率		dV/dt	V_D=0.66×V_{DRM} T_J=125℃ Exponential waveform,Gate open		50		V/μs
通态电流临界上升率		dI/dt	T_J=125℃,f=120Hz,I_G=2×I_{GT}, tr≤120ns			50	A/μs
断态电流临界上升率		dI/dt©	V_{DM}=400V T_J=125℃ $I_{T(RMS)}$=4A dV/dt=0.1V/μs Gate open		5		A/ms
热阻		$R_{th(j-c)}$	结到外壳			2.0	℃/W
		$R_{th(j-a)}$	结到环境			70	

◆产品包装

封装形式	数 量	包装材质
TO-252	2500/盘、25000/箱	盘/箱

◆ 特性数据

Figure 1. Maximum power dissipation versus rms on-state current (full cycle)

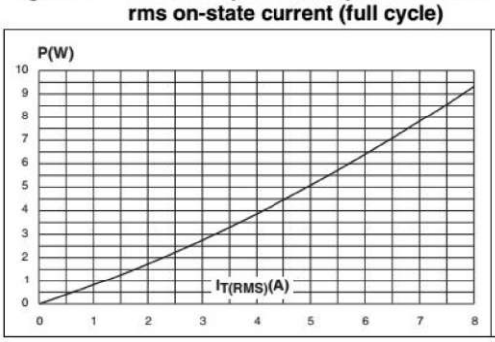


Figure 2. On-state rms current versus case temperature (full cycle)

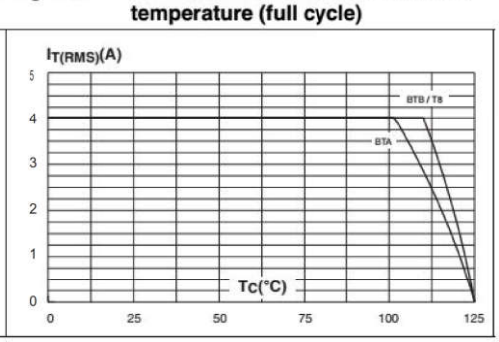


Figure 3. On-state rms current versus ambient temperature (full cycle)

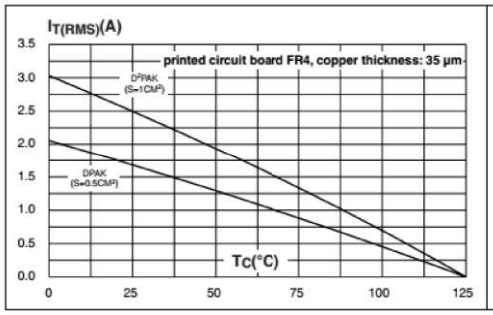


Figure 4. Relative variation of thermal impedance versus pulse duration

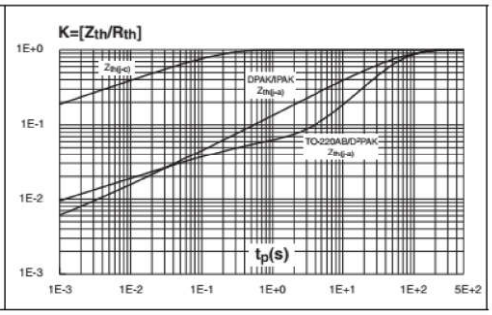


Figure 5. On-state characteristics (maximum values)

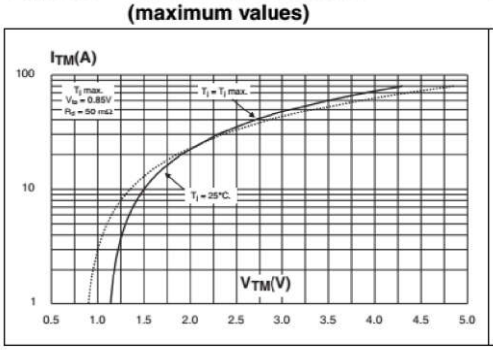


Figure 6. Surge peak on-state current versus number of cycles

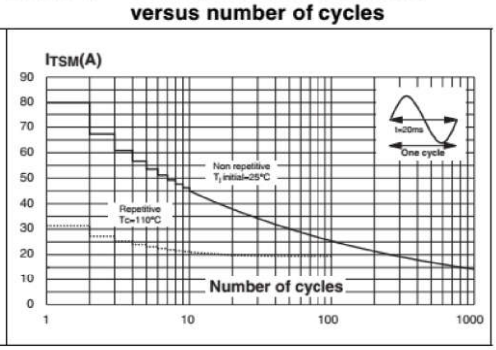


Figure 7. Non-repetitive surge peak on-state current for a sinusoidal

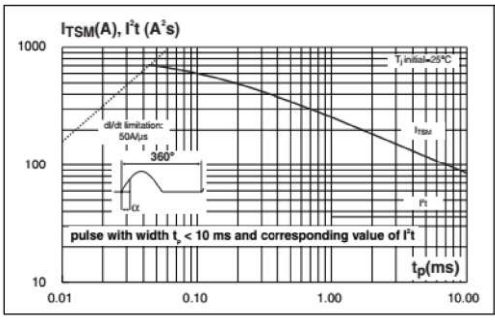


Figure 8. Relative variation of gate trigger current

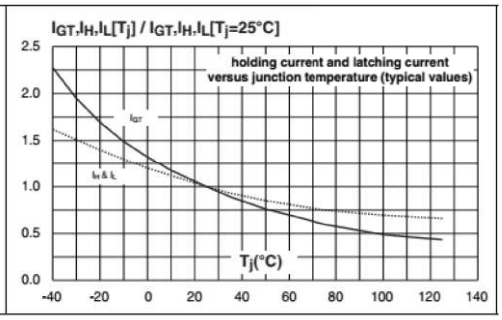


Figure 9. Relative variation of critical rate of decrease of main current versus (dV/dt)c (typical values)

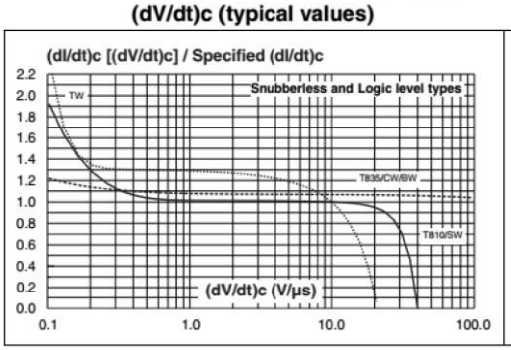


Figure 10. Relative variation of critical rate of decrease of main current versus (dV/dt)c (typical values)

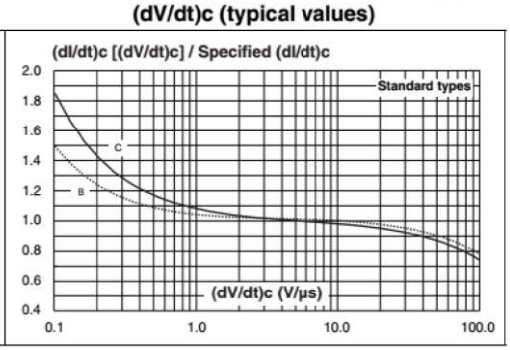


Figure 11. Relative variation of critical rate of decrease of main current versus junction temperature

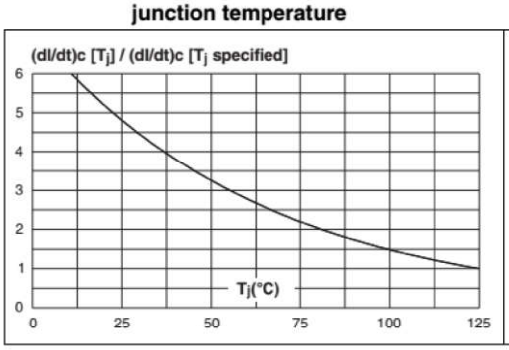
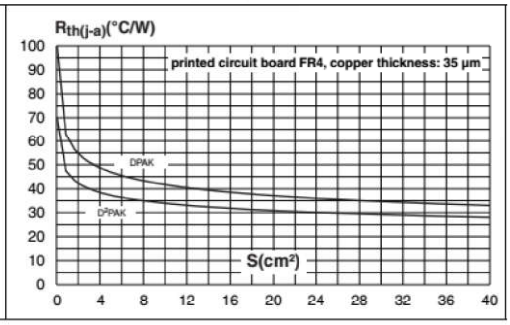
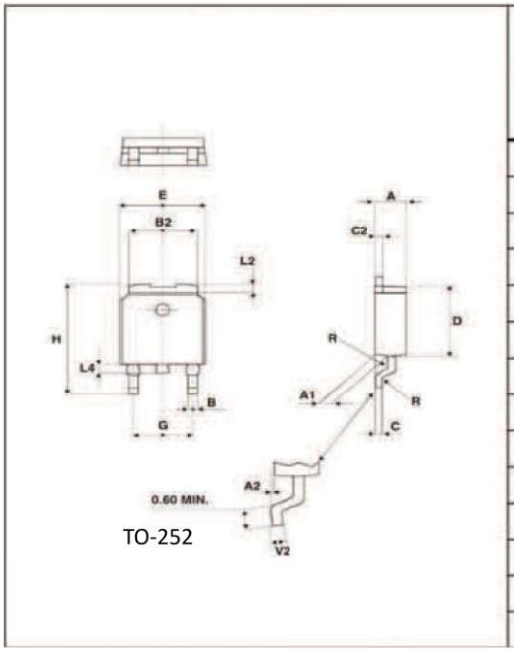


Figure 12. DPAK and D²PAK thermal resistance junction to ambient versus copper surface under tab



◆ 产品尺寸



TO-252

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.20	2.40	0.086	0.094
A1	0.90	1.10	0.035	0.043
A2	0.03	0.23	0.001	0.009
B	0.64	0.90	0.025	0.035
B2	5.20	5.40	0.204	0.212
C	0.45	0.60	0.017	0.023
C2	0.48	0.60	0.018	0.023
D	6.00	6.20	0.236	0.244
E	6.40	6.60	0.251	0.259
G	4.40	4.60	0.173	0.181
H	9.35	10.10	0.368	0.397
L2	0.80 typ.		0.031 typ.	
L4	0.60	1.00	0.023	0.039
V2	0°	8°	0°	8°

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