



T810-xxxB T835-xxxB

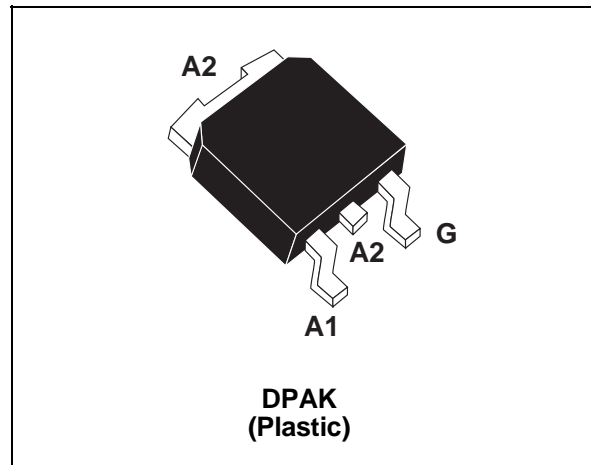
HIGH PERFORMANCE TRIACS

FEATURES

- $I_{T(RMS)} = 8\text{ A}$
- SENSITIVE GATE : $I_{GT} \leq 10\text{mA}$ and 35mA
- HIGH COMMUTATION TECHNOLOGY
- HIGH I_{TSM} CAPABILITY

DESCRIPTION

The T810-xxxB and T835-xxxB series are using high performance TOPGLASS PNP technology. These devices are intended for AC control applications, using surface mount technology where high commutating and surge performances are required (like power tools, Solid State Relay).



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter		Value	Unit
$I_{T(RMS)}$	RMS on-state current (360° conduction angle)	$T_c = 110\text{ °C}$	8	A
I_{TSM}	Non repetitive surge peak on-state current (T_j initial = 25°C)	$t_p = 8.3\text{ ms}$	85	A
		$t_p = 10\text{ ms}$	80	
I^2t	I^2t value for fusing	$t_p = 10\text{ ms}$	32	A ² s
di/dt	Critical rate of rise of on-state current $I_G = 50\text{mA}$ $di_G/dt = 0.1\text{A}/\mu\text{s}$	Repetitive $F = 50\text{ Hz}$	20	A/ μs
		Non Repetitive	100	
T_{stg} T_j	Storage temperature range Operating junction temperature range		- 40 to + 150 - 40 to + 125	°C °C
T	Maximum temperature for soldering during 10 s		260	°C

Symbol	Parameter	T810-/T835-		Unit
		400B	600B	
V_{DRM} V_{RRM}	Repetitive peak off-state voltage $T_j = 125\text{ °C}$	400	600	V

Fig 1a: Maximum power dissipation versus RMS on-state current (T810 only).

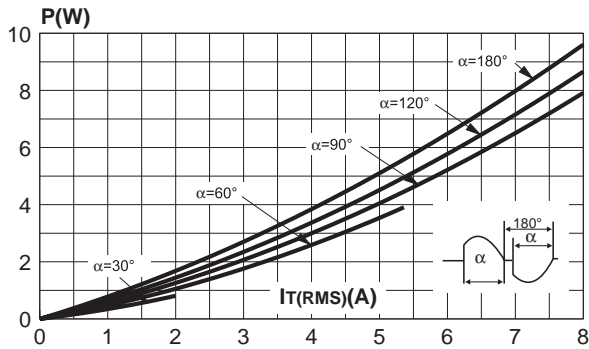


Fig 1b: Maximum power dissipation versus RMS on-state current. (T835 only)

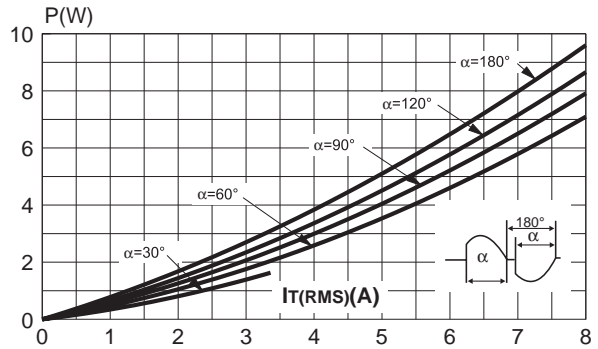


Fig 2: Correlation between maximum power dissipation and maximum allowable temperatures (T_{amb} and T_{case}) for different thermal resistances heatsink+contact.

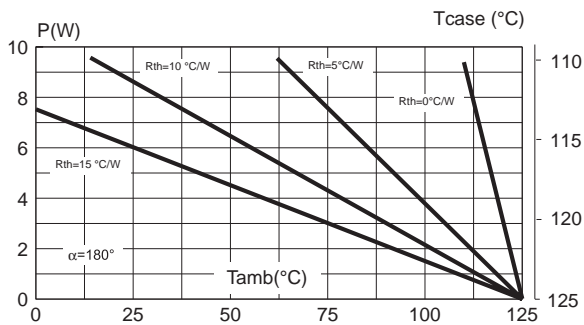


Fig 3: RMS on-state current versus ambient temperature.

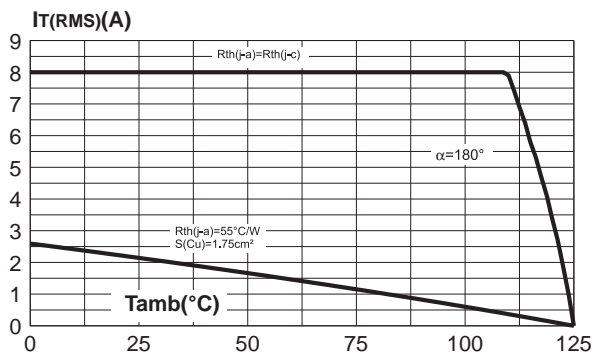


Fig 4: Relative variation of thermal impedance junction to case versus pulse duration.

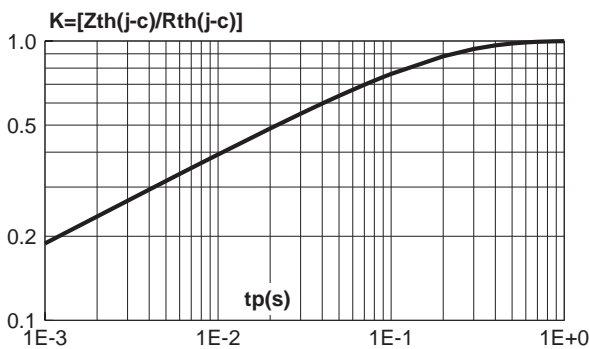


Fig 5: Relative variation of gate trigger current and holding current versus junction temperature (typical values).

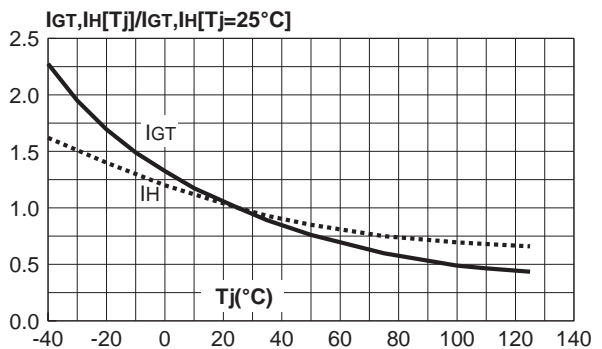


Fig 6: Non repetitive surge peak on-state current versus number of cycles.

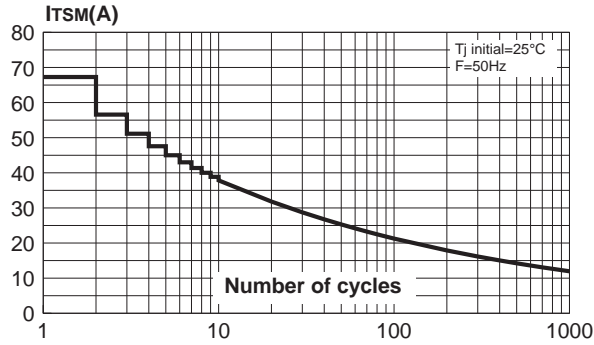


Fig 7: Non repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 10\text{ms}$, and corresponding value of I^2t .

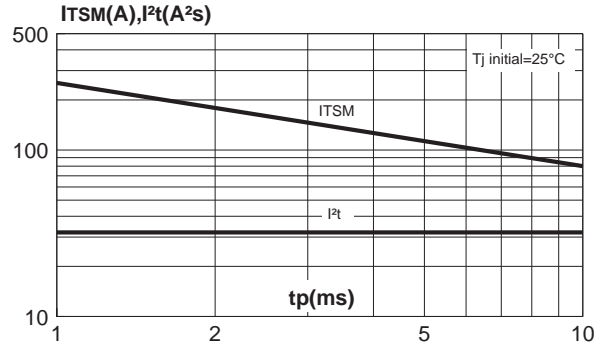


Fig 8: On-state characteristics (maximum values).

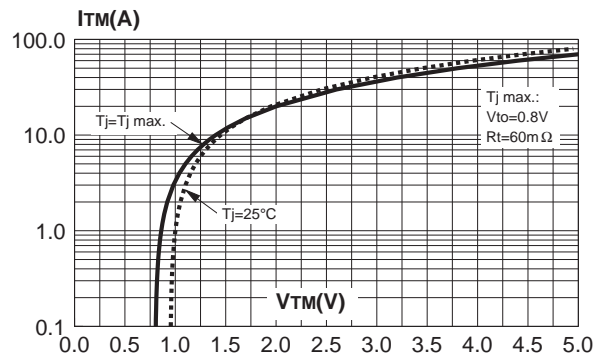
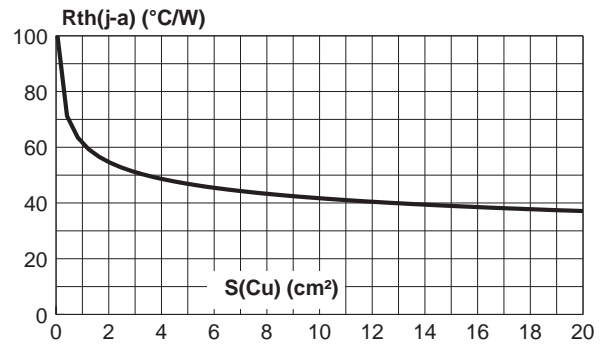
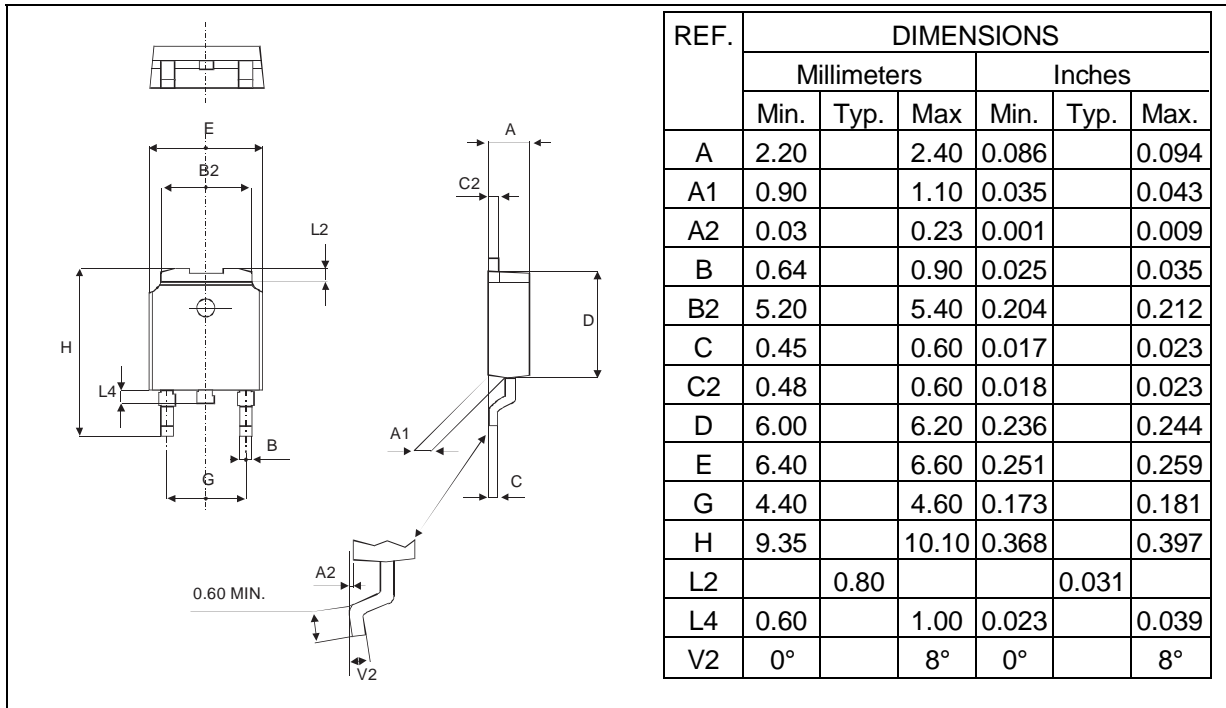


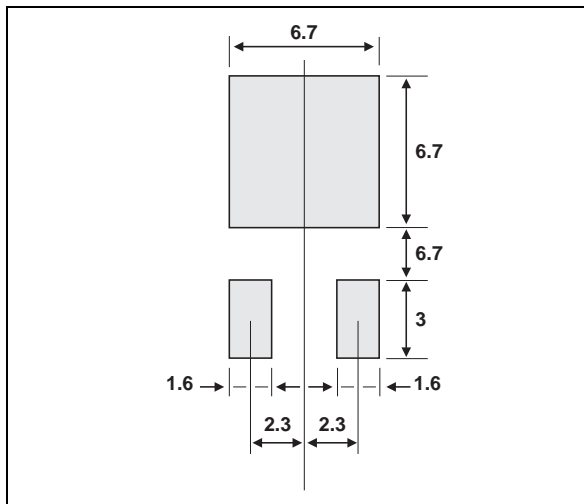
Fig 9: Thermal resistance junction to ambient versus copper surface under tab (Epoxy printed circuit board FR4, copper thickness: $35\mu\text{m}$).



PACKAGE MECHANICAL DATA
DPAK Plastic



FOOT PRINT (millimeters)



WEIGHT : 0.30g

MARKING

TYPE	MARKING
T810-400B	T8 1040
T810-600B	T8 1060
T835-400B	T8 3540
T835-600B	T8 3560

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