

Triacs

BT137 series

GENERAL DESCRIPTION

Glass passivated triacs in a plastic envelope, intended for use in applications requiring high bidirectional transient and blocking voltage capability and high thermal cycling performance. Typical applications include motor control, industrial and domestic lighting, heating and static switching.

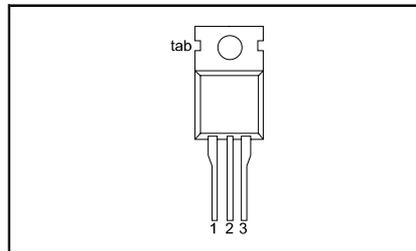
QUICK REFERENCE DATA

SYMBOL	PARAMETER	MAX.	MAX.	MAX.	UNIT
V_{DRM}	Repetitive peak off-state voltages	500 500F 500G	600 600F 600G	800 800F 800G	V
$I_{T(RMS)}$	RMS on-state current	8	8	8	A
I_{TSM}	Non-repetitive peak on-state current	65	65	65	A

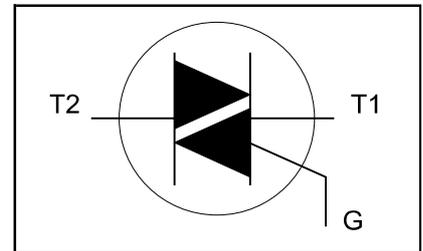
PINNING - TO220AB

PIN	DESCRIPTION
1	main terminal 1
2	main terminal 2
3	gate
tab	main terminal 2

PIN CONFIGURATION



SYMBOL



LIMITING VALUES

Limiting values in accordance with the Absolute Maximum System (IEC 134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.			UNIT
				-500 500 ¹	-600 600 ¹	-800 800	
V_{DRM}	Repetitive peak off-state voltages		-				V
$I_{T(RMS)}$	RMS on-state current	full sine wave; $T_{mb} \leq 102\text{ }^\circ\text{C}$	-	8			A
I_{TSM}	Non-repetitive peak on-state current	full sine wave; $T_j = 25\text{ }^\circ\text{C}$ prior to surge $t = 20\text{ ms}$	-	65			A
I^2t	I^2t for fusing	$t = 16.7\text{ ms}$	-	71			A
dI_T/dt	Repetitive rate of rise of on-state current after triggering	$t = 10\text{ ms}$ $I_{TM} = 12\text{ A}; I_G = 0.2\text{ A};$ $dI_G/dt = 0.2\text{ A}/\mu\text{s}$	-	21			A ² s
I_{GM}	Peak gate current	T2+ G+ T2+ G- T2- G- T2- G+	-	50			A/ μs
V_{GM}	Peak gate voltage		-	50			A/ μs
P_{GM}	Peak gate power		-	50			A/ μs
$P_{G(AV)}$	Average gate power		-	10			A/ μs
T_{stg}	Storage temperature		-	2			A
T_j	Operating junction temperature	over any 20 ms period	-40	5			V
			-	5			W
			-	0.5			W
			-	150			$^\circ\text{C}$
			-	125			$^\circ\text{C}$

¹ Although not recommended, off-state voltages up to 800V may be applied without damage, but the triac may switch to the on-state. The rate of rise of current should not exceed 6 A/ μs .