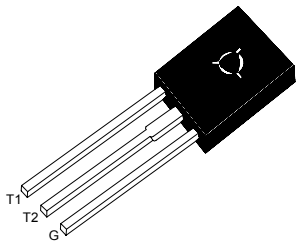
ST BT134T

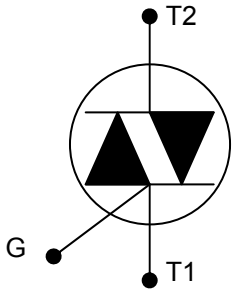
TRIAC

APPLICATIONS

- For use in high bidirectional transient and blocking voltage applications
- For high thermal cycling performance
- Typical application include motor control, industrial and domestic lighting, heating and static switching



TO-126 Plastic Package



Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Repetitive Peak Off State Voltage	V_{DRM}	600 [1]	V
RMS on State Current Full Sine Wave, $T_{mb} \leq 107$ °C	$I_{T(RMS)}$	4	A
Non-Repetitive Peak on State Current t = 20 ms Full Sine Wave, $T_J = 25$ °C Prior to Surge t = 16.7 ms	I_{TSM}	25 27	A
I^2t for Fusing t = 10 ms	I^2t	3.1	A^2s
Repetitive Rate of Rise of on State Current after Triggering $I_{TM} = 6$ A, $I_G = 0.2$ A, $dI_G/dt = 0.2$ A/µs T2+ G+ T2+ G- T2- G- T2- G+	dI_T/dt	 50 50 50 10	A/µs
Peak Gate Current	I_{GM}	2	A
Peak Gate Voltage	V_{GM}	5	V
Peak Gate Power	P_{GM}	5	W
Average Gate Power (Over any 20 ms period)	$P_{G(AV)}$	0.5	W
Operating Junction Temperature	T_J	125	°C
Storage Temperature Range	T_{stg}	-40 to +150	°C

[1] The rate of rise of current should not excees 3A/µs

Characteristics at T_J = 25 °C

Parameter		Symbol	Min.	Typ.	Max.	Unit
Gate Trigger Current at V_D = 12 V, I_T = 0.1 A						
	T2+ G+	I_{GT}	-	-	35	mA
	T2+ G-		-	-	35	
	T2- G-		-	-	35	
	T2- G+		-	-	70	
Latching Current at V_D = 12 V, I_{GT} = 0.1 A						
	T2+ G+	I_L	-	-	20	mA
	T2+ G-		-	-	30	
	T2- G-		-	-	20	
	T2- G+		-	-	30	
Holding Current at V_D = 12 V, I_{GT} = 0.1 A		I_H	-	-	15	mA
On State Voltage at I_T = 5 A		V_T	-	-	1.7	V
Gate Trigger Voltage at V_D = 12 V, I_T = 0.1 A		V_{GT}	-	-	1.5	V
at V_D = 400 V, I_T = 0.1 A, T_J = 125 °C			0.25	-	-	
Off State Leakage Current at V_D = max, V_{DRM} = max, T_J = 125 °C		I_D	-	-	0.5	mA
Critical Rate of Rise of Off State Voltage at V_{DM} = 67% V_{DRM} max, T_J = 125 °C, exponential waveform, gate open circuit		dV_D/dt	100	250	-	V/µs
Critical Rate of Change of Commutating Voltage at V_{DM} = 400 V, T_J = 95 °C, $I_{T(RMS)}$ = 4 A, dI_{com}/dt = 1.8 A/ms, gate open circuit		dV_{com}/dt	-	50	-	V/µs
Gate Controlled Turn On Time at I_{TM} = 6 A, V_D = V_{DRM} max, I_G = 0.1 A, dI_G/dt = 5 A/µs,		t_{gt}	-	2	-	µs

Thermal Resistance

Parameter		Symbol	Value	Unit
Junction to Mounting Base	Full Cycle	$R_{th(j-mb)}$	3	K/W
	Half Cycle		3.7	
Junction to Ambient (typical)	In Free Air	$R_{th(j-a)}$	100 (Typ.)	K/W