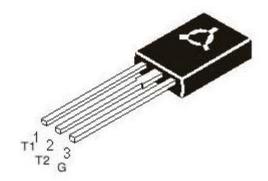


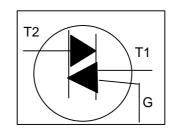




An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company

TRIAC BT134





TO-126 Plastic Package

For use in high bidirectional transient and blocking voltage applications, and for high thermal cycling performance. Typical Application include Motor Control, Industrial and Domestic Lighting, Heating and Static Switching.

#### **ABSOLUTE MAXIMUM RATINGS**

PARAMETER	SYMBOL	TEST CONDITION	VALUE	UNIT
Repetitive Peak Off State Voltage	*V <sub>DRM</sub>		600	V
RMS on State Current	I <sub>T (RMS)</sub>	full sine wave, T <sub>mb</sub> ≤107°C	4.0	А
Non Repetitive Peak on State Current	I <sub>TSM</sub>	full sine wave, T <sub>J</sub> =25°C prior to Surge		
		t=20ms t=16.7ms	25 27	A A
I <sup>2</sup> t for Fusing	l <sup>2</sup> t	t=10ms	3.1	$A^2s$
Repetitive Rate of Rise of on State Current After Triggering	dl <sub>T</sub> /dt	I <sub>TM</sub> =6A, I <sub>G</sub> =0.2A, dI <sub>G</sub> /dt=0.2A/μs T2+ G+ T2+ G- T2- G- T2- G+	50 50 50 10	Α/μs Α/μs Α/μs Α/μs
Peak Gate Current	I <sub>GM</sub>		2.0	A
Peak Gate Voltage	$V_{GM}$		5.0	V
Peak Gate Power	$P_{GM}$		5.0	W
Average Gate Power	P <sub>G (AV)</sub>	Over any 20ms period	0.5	W
Storage Temperature	T <sub>stg</sub>		- 40 to +150	°C
Operating Junction Temperature	T <sub>j</sub>		125	°C

<sup>\*</sup>The rate of rise of current should not excees 3A/ms

### THERMAL RESISTANCE

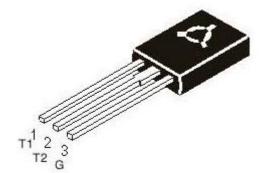
Junction to Mounting Base	R <sub>th (j-mb)</sub>	full cycle	3.0	K/W
		half cycle	3.7	K/W
Junction to Ambient (typical)	R <sub>th (j-a)</sub>	in free air	100 (Typ)	K/W

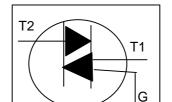
ELECTRICAL CHARACTERISTICS (T<sub>J</sub>=25°C unless specified otherwise)

ELECTRICAL CHARACTERISTICS (1J-25 C dilicos operation enter wied)						
PARAMETER	SYMBOL	TEST CONDITION	MIN	MAX	UNIT	
Gate Trigger Current	I <sub>GT</sub>	$V_{D}=12V, I_{T}=0.1A$				
		T2+ G+		35	mA	
		T2+ G-		35	mA	
		T2- G-		35	mA	
		T2- G+		70	mΑ	

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ELECTRICAL CHARACTERISTICS (T<sub>.1</sub>=25°C unless specified otherwise)

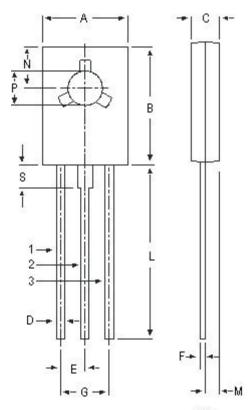
ELECTRICAL CHARACTERISTICS (T <sub>J</sub> =25°C unless specified otherwise)							
PARAMETER	SYMBOL	TEST CONDITION	MIN	MAX	UNIT		
Latching Current	Ι <sub>L</sub>	V <sub>D</sub> =12V, I <sub>GT</sub> =0.1A					
		T2+ G+		20	mΑ		
		T2+ G-		30	mΑ		
		T2- G-		20	mΑ		
		T2- G+		30	mΑ		
Holding Current	I <sub>H</sub>	V <sub>D</sub> =12V, I <sub>GT</sub> =0.1A		15	mΑ		
On State Voltage	$V_{T}$	I <sub>T</sub> =5A		1.7	V		
Gate Trigger Voltage	$V_{GT}$	$V_{D}=12V, I_{T}=0.1A$		1.5	٧		
		V <sub>D</sub> =400V, I <sub>T</sub> =0.1A,T <sub>J</sub> =125°C	0.25		V		
Off State Leakage Current	I <sub>D</sub>	V <sub>D</sub> =max, V <sub>DRM</sub> =max, T <sub>J</sub> =125°C		0.5	mA		

DYNAMIC CHARACTERISTICS (T<sub>J</sub>=25°C unless specified otherwise)

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Critical Rate of Rise of off State Voltage	dV <sub>D</sub> /dt	$\begin{array}{c} V_{\text{DM}}\text{=}67\% \ V_{\text{DRM}}  \text{max}, \\ T_{\text{J}}\text{=}125^{\circ}\text{C},  \text{exponential} \\ \text{waveform, gate open circuit} \end{array}$		250		V/μs
Critical Rate of Change of Commutating Voltage	dV <sub>com</sub> /dt	V <sub>DM</sub> =400V, T <sub>J</sub> =95°C, I <sub>T(RMS)</sub> =4A, dI <sub>com</sub> /dt=1.8A/ms, gate open circuit		50		V/μs
Gate Controlled turn on time	t <sub>gt</sub>	$I_{TM}$ =6A, $V_D$ = $V_{DRM}$ max, $I_G$ =0.1A, $dI_G$ / $dt$ =5A/ $\mu$ s		2.0		μs

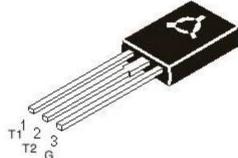
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# **TO-126 Plastic Package**



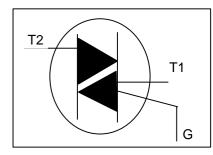
DIM	MIN	MAX	
Α	7.4	7.8	
В	10.5	10.8	
С	2.4	2.7	
D	0.7	0.9	
E	2.25	TYP.	
F	0.49	0.75	
G	4.5 7	TYP.	
L	15.7	TYP.	
М	1.27 TYP. 3.75 TYP.		
N			
Р	3.0	3.2	
S	2.5 1	TYP.	

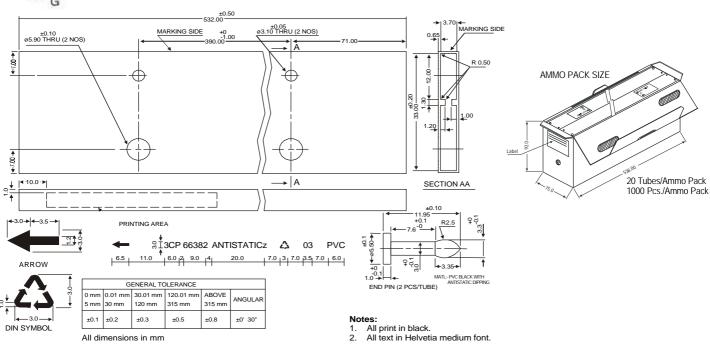
All dimensions in mm.



Pin Configuration

- 1. Main Terminal 1
- 2. Main Terminal 2
- 3. Gate





## **Packing Detail**

All dimensions in mm

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-126 Bulk	500 pcs/polybag	340 gm/500 pcs	3" x 7.5" x 7.5"	2K	17" x 15" x 13.5"	32K	31 kgs
TO-126 Tube	50 pcs/tube	73 gm/50 pcs	3" x 3.7" x 21.5"	1K	19" x 19" x 19"	10K	15 kgs

Notes BT134

TO-126
Plastic Package

## **Disclaimer**

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CDIL is a registered Trademark of
Continental Device India Limited
C-120 Naraina Industrial Area, New Delhi 110 028, India.
Telephone + 91-11-2579 6150, 5141 1112 Fax + 91-11-2579 5290, 5141 1119
email@cdil.com www.cdilsemi.com