

## BT151F-600 Thyristor Series

## TO-220F

### Absolute maximum ratings

Parameter	Symbol	Value	Unit	Test condition
peak repetitive off-state voltage	$V_{DRM}, V_{RRM}$	>600	V	
on-state RMS current	$I_T(RMS)$	12	A	$T_C=105^\circ C$
average on-state current	$I_T(AV)$	8	A	$T_C=105^\circ C$
NON repetitive surge peak on-state current	$I_{TSM}$	140	A	$T_p=10ms, T_j=25^\circ C$
critical rate of rise on-state current	$di/dt$	50	A/ $\mu s$	$F=60HZ$
peak gate current	$I_{GM}$	4	A	$t_p=20 \mu s$
average gate power dissipation	$P_G(AV)$	1	W	
storage temperature range	$T_{stg}$	- 40 to +150	$^\circ C$	
operating junction temperature range	$T_j$	125	$^\circ C$	

### Electrical characteristics ( $T_j=25^\circ C$ ) unless otherwise specified

Parameter	Symbol	Value	Unit	Test condition
gate trigger current	$I_{GT}$	2-15	mA	$V_D=12V, R_L=33\Omega$
gate trigger voltage	$V_{GT}$	$\leq 1.3$	V	$V_D=12V, R_L=33\Omega$
hold current	$I_H$	$\leq 30$	mA	$I_T=500mA$
critical rate of rise off-state voltage	$dv/dt$	$\geq 50$	V/ $\mu s$	$V_D=67\%V_{DRM}$
on-state voltage	$V_{TM}$	$\leq 1.6$	V	$I_{TM}=24A, t_p=380\mu s$
off-state leakage current	$I_{DRM}, I_{RRM}$	$\leq 5.0$	mA	$V_D=V_{DRM}; V_R=V_{RRM}; T_j=25^\circ C$
thermal resistance	$R_{th(j-a)}$	60	$^\circ C/W$	
	$R_{th(j-c)}$	$\leq 1.3$		

### Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damage resulting from such sale(s).

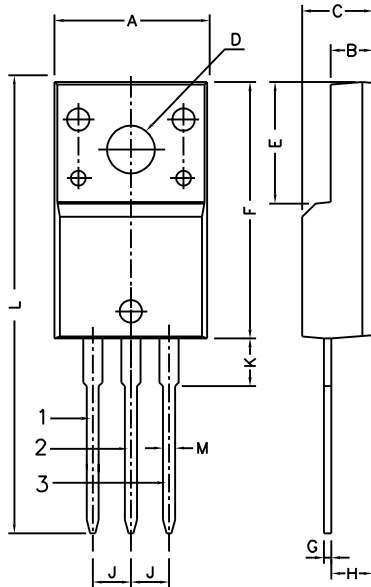
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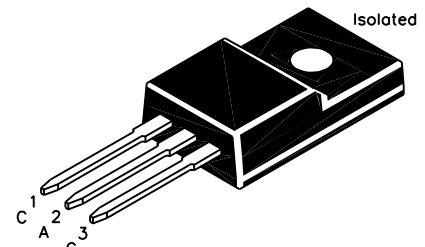
BT151F- 600 Rev170510E

## TO-220FP PLASTIC PACKAGE



DIM	MIN	MAX
A	9.80	10.36
B	2.50	3.00
C	4.30	4.90
D	3.10	3.40
E	6.50	8.20
F	14.80	17.27
G	0.40	0.70
H	2.50	2.96
J	2.34	2.74
K	—	4.70
L	—	30.05
M	0.60	0.90

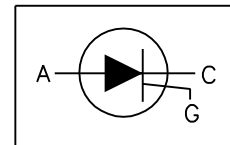
All dimensions in mm



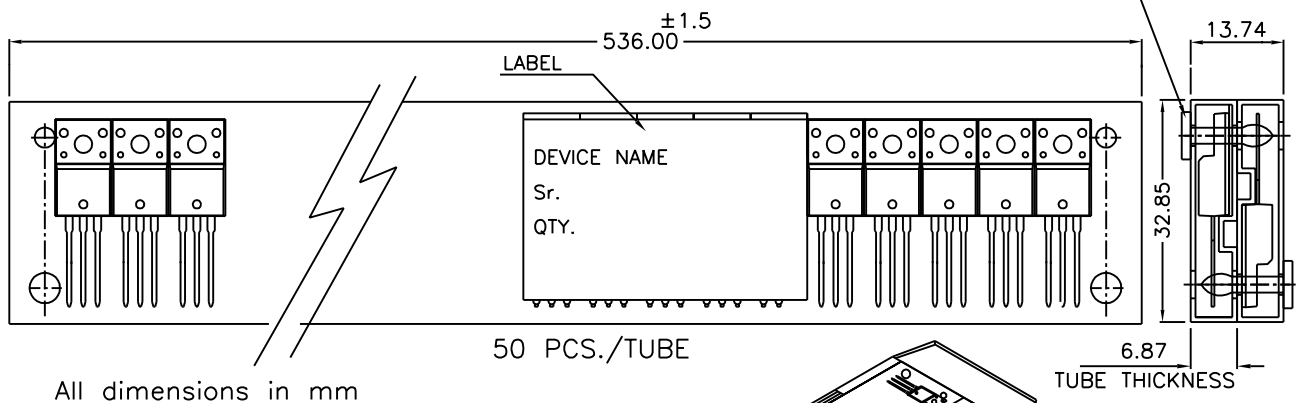
Pin Configuration

1. Cathode
2. Anode
3. Gate

Case Isolated

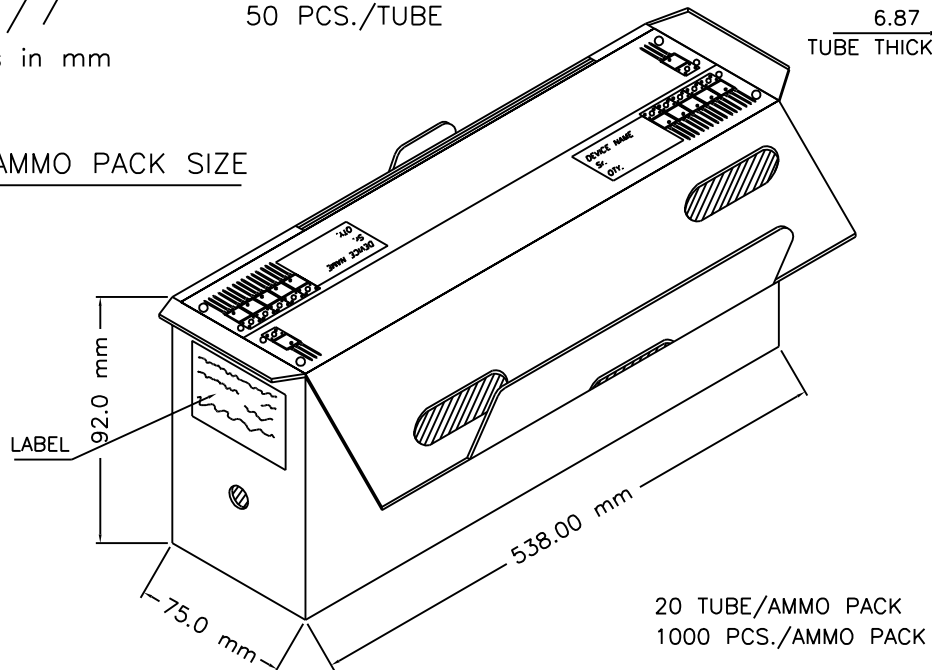


## TO-220FP TUBE PACKING



All dimensions in mm

## AMMO PACK SIZE



## Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty.	Size	Qty.	Size	Qty.	Gr. wT
TO-220 FP	200 pcs/polybag	396 gm/200 pcs	3" x 7.5" x 7.5"	1.0K	17' x 15" x 13.5"	16.0K	36 kgs
	50 pcs/tube	120 gm/50 pcs	3.5" x 3.7" x 21.5"	1.0K	19" x 19" x 19"	10.0K	29 kgs