

# Thyristors

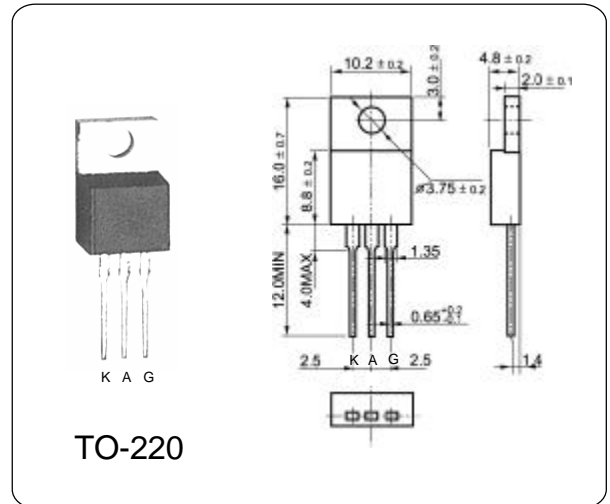
**BT152-600**

## GENERAL DESCRIPTION

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

## ABSOLUTE MAXIMUM RATINGS ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Typ	Unit
Repetitive peak off-state voltages	$V_{DRM}$ $V_{RRM}$	600	V
RMS on-state current	$I_{T(RMS)}$	20	A
Non-repetitive peak on-state current	$I_{TSM}$	200	A
Max. Operating Junction Temperature	$T_j$	110	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-45~150	$^\circ\text{C}$



## ELECTRICAL CHARACTERISTICS ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Repetitive peak off-state voltages	$V_{DRM}$ $V_{RRM}$		—	600	—	V
RMS on-state current	$I_{T(RMS)}$	full sine wave; $T_{mb} \leq 107\text{ }^\circ\text{C}$	—	20	—	A
On-state voltage	$V_T$	$I_T = 40\text{ A}$	—	1.4	1.75	V
Holding current	$I_H$	$V_D = 12\text{ V}; I_{GT} = 0.1\text{ A}$	—	15	60	mA
Gate trigger current	$I_{GT}$	$V_D = 12\text{ V}; I_T = 0.1\text{ A}$	—	3	32	mA
Latching current	$I_L$	$V_D = 12\text{ V}; I_{GT} = 0.1\text{ A}$	—	25	40	mA
Gate trigger voltage	$V_{GT}$	$V_D = 12\text{ V}; I_T = 0.1\text{ A}$	—	0.6	1.5	V