

TO-220F Plastic-Encapsulate Thyristors

BT152 SCR

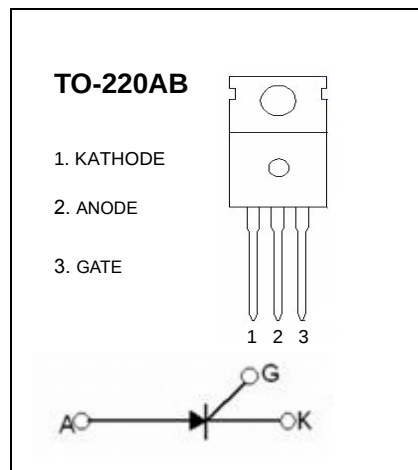
MAIN FEATURES

Symbol	value	unit
$I_{T(RMS)}$	12	A
V_{DRM}/V_{RRM}	600	V
I_{TSM}	120	A

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.



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

symbol	parameter			value	unit
$I_{T(RMS)}$	RMS on-state current (full sine wave)	D^2 PAK/TO-220	$T_c=107^{\circ}\text{C}$	12	A
I_{TSM}	Non repetitive surge peak on-state current (full sine wave, $T_j=25^{\circ}\text{C}$)			120	A
I_{GM}	Peak gate current			2	A
$P_{G(AV)}$	Average gate power dissipation			0.5	W
T_{stg}	Storage junction temperature range			-40 to +150	$^{\circ}\text{C}$
T_j	Operating junction temperature range			-40 to +125	

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Max	Unit
Rated repetitive peak off-state/reverse voltage	V_{DRM}, V_{RRM}	$I_D=10\mu\text{A}$		600		V
Rated repetitive peak off-state current	I_{DRM}, I_{RRM}	$V_D=620\text{V}$			10	μA
On-state voltage	V_{TM}	$I_T=12\text{A}$			1.7	V
Gate trigger current	I_{GT}		$V_D=12\text{V}$ $R_L=100\Omega$		20	mA
Gate trigger voltage	V_{GT}		$V_D=12\text{V}$ $R_L=100\Omega$		1.45	V
Holding current	I_H	$I_T=100\text{mA}$ $I_G=20\text{mA}$			30	mA