

isc Thyristors

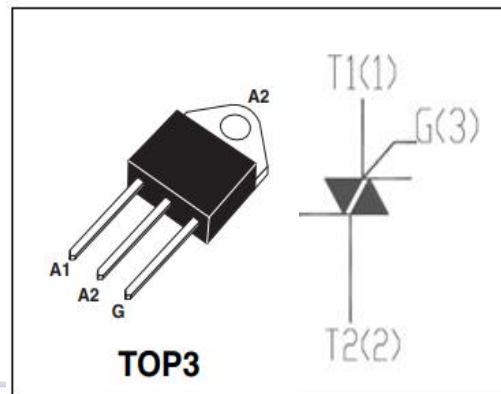
BTB41-600B

DESCRIPTION

- With TO-P3 packaging
- Operating in 4 quadrants
- High commutation capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Solid state relays; heating and cooking appliances
- Switching applications



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

SYMBOL	PARAMETER		MAX	UNIT
V_{DRM}	Repetitive peak off-state voltage		600	V
V_{RRM}	Repetitive peak reverse voltage		600	V
$I_{\text{T(RSM)}}$	Average on-state current	@ $T_c=90^{\circ}\text{C}$	40	A
I_{TSM}	Surge non-repetitive on-state current	50HZ 60HZ	400 420	A
$P_{\text{G(AV)}}$	Average gate power dissipation (over any 20 ms period)		1.0	W
T_j	Operating junction temperature		-40~125	$^{\circ}\text{C}$
T_{stg}	Storage temperature		-40~150	$^{\circ}\text{C}$

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

SYMBOL	PARAMETER	CONDITIONS		MIN	MAX	UNIT
I_{RRM}	Repetitive peak reverse current	$V_R=V_{\text{RRM}}$ Rated; $V_D=V_{\text{DRM}}$ Rated;	$T_j=25^{\circ}\text{C}$		0.005	mA
I_{DRM}	Repetitive peak off-state current		$T_j=125^{\circ}\text{C}$		5	
V_{TM}	On-state voltage	$I_T=60\text{A}$			1.55	V
I_{GT}	Gate-trigger current	$V_D=12\text{V}; R_G=33\ \Omega$	I		50	mA
			II		50	
			III		50	
			IV		100	
V_{GT}	Gate-trigger voltage	$V_D=12\text{V}; R_G=33\ \Omega$			1.3	V
$R_{\text{th (j-c)}}$	Junction to case	Half cycle			0.9	$^{\circ}\text{C/W}$

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