

**Thyristors**

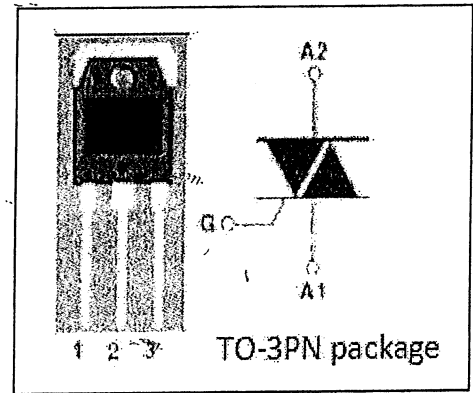
**BTA41-400B**

**DESCRIPTION**

- With TO-3PN packaging
- Can be operated in 4 quadrants
- Advanced technology to provide customers with high commutation performances
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Switching applications
- Phase control
- Static switching on inductive or resistive load



**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
$I_{T(RSM)}$	Average on-state current	$T_c=75^{\circ}\text{C}$	40	A
$I_{TSM}$	Surge non-repetitive on-state current	50HZ 60HZ	315 300	A
$P_{G(AV)}$	Average gate power dissipation ( over any 20 ms period )		1	W
$T_j$	Operating junction temperature		-40~125	$^{\circ}\text{C}$
$T_{stg}$	Storage temperature		-40~150	$^{\circ}\text{C}$

# Thyristors

**BTA41-400B**

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

SYMBOL	PARAMETER	CONDITIONS		MIN	MAX	UNIT
$I_{RRM}$	Repetitive peak reverse current	$V_R=V_{RRM}$ Rated; $V_D=V_{DRM}$ Rated;	$T_j=25^\circ\text{C}$ $T_j=125^\circ\text{C}$		0.01 6	mA
$I_{DRM}$	Repetitive peak off-state current					
$V_{TM}$	On-state voltage	$I_T=60\text{A}; t_p=380\ \mu\text{s}$			1.8	V
$I_{GT}$	Gate-trigger current	$V_D=12\text{V}; R_L=33\Omega;$	I		50	mA
			II		50	
			III		50	
			IV		100	
$V_{GT}$	Gate-trigger voltage	$V_D=12\text{V}; R_L=33\Omega;$			1.5	V
$R_{th(j-c)}$	Junction to case				1.2	$^\circ\text{C/W}$