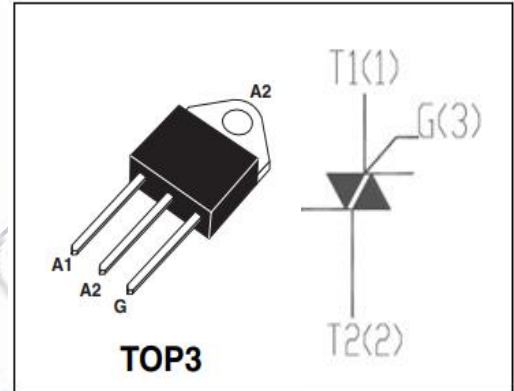


**isc Thyristors**
**BTA41-800BRG**
**DESCRIPTION**

- 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
$V_{\text{DRM}}$	Repetitive peak off-state voltage	800	V
$V_{\text{RRM}}$	Repetitive peak reverse voltage	800	V
$I_{\text{T(RSM)}}$	Average on-state current @ $T_c=80^{\circ}\text{C}$	40	A
$I_{\text{TSM}}$	Surge non-repetitive on-state current	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	$^{\circ}\text{C}$
$T_{\text{stg}}$	Storage temperature	-40~150	$^{\circ}\text{C}$

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$I_{\text{RRM}}$	Repetitive peak reverse current	$V_R=V_{\text{RRM}}$ Rated; $V_D=V_{\text{DRM}}$ Rated;		0.005 5	mA
$I_{\text{DRM}}$	Repetitive peak off-state current				
$V_{\text{TM}}$	On-state voltage	$I_T=60\text{A}$		1.55	V
$I_{\text{GT}}$	Gate-trigger current	$V_D=12\text{V}; R_G=33\ \Omega$	I	50	mA
			II	50	
			III	50	
			IV	100	
$V_{\text{GT}}$	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	$^{\circ}\text{C}/\text{W}$