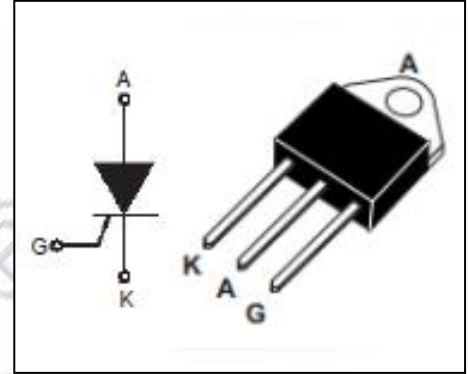


**isc Thyristors**
**BTW69-1000RG**
**DESCRIPTION**

- With TO-3P packaging
- High commutation capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Switching applications
- Battery charging system
- Uninterruptible power supply
- Variable speed motor drive
- Industrial welding systems
- By pass AC switch


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

SYMBOL	PARAMETER	MAX	UNIT
$V_{\text{DRM}}$	Repetitive peak off-state voltage	1000	V
$V_{\text{RRM}}$	Repetitive peak reverse voltage	1000	V
$I_{\text{T(RSM)}}$	Average on-state current	@ $T_c=75^{\circ}\text{C}$	50
$I_{\text{TSM}}$	Surge non-repetitive on-state current	50Hz 60Hz	580 610
$P_{\text{G(AV)}}$	Average gate power dissipation ( over any 20 ms period ) @ $T_c=125^{\circ}\text{C}$	1	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; $T_j=25^{\circ}\text{C}$ $V_D=V_{\text{DRM}}$ Rated; $T_j=125^{\circ}\text{C}$		10	$\mu\text{A}$
$I_{\text{DRM}}$	Repetitive peak off-state current		5	mA	
$V_{\text{TM}}$	On-state voltage	$I_T=100\text{A}; t_p=380\ \mu\text{s}$		1.9	V
$I_{\text{GT}}$	Gate-trigger current	$V_D=12\text{V}; R_L=33\ \Omega$		80	mA
$V_{\text{GT}}$	Gate-trigger voltage	$V_D=12\text{V}; R_L=33\ \Omega$		1.3	V
$R_{\text{th (j-c)}}$	Junction to case	For AC		0.9	$^{\circ}\text{C/W}$