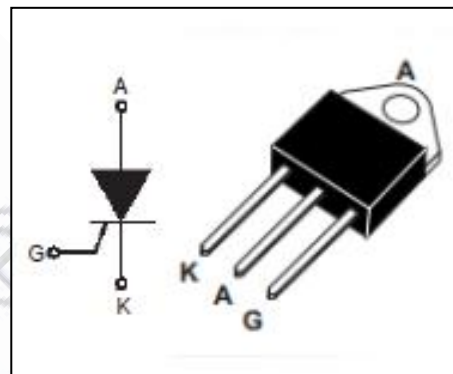


isc Thyristors
BTW69-600RG
DESCRIPTION

- 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_{DRM}	Repetitive peak off-state voltage	600	V
V_{RRM}	Repetitive peak reverse voltage	600	V
$I_{\text{T(RSM)}}$	Average on-state current	@ $T_c=75^{\circ}\text{C}$ 50	A
I_{TSM}	Surge non-repetitive on-state current	50Hz 60Hz 580 610	A
$P_{\text{G(AV)}}$	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_{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; $T_j=25^{\circ}\text{C}$ $V_D=V_{\text{DRM}}$ Rated; $T_j=125^{\circ}\text{C}$		10	μA
I_{DRM}	Repetitive peak off-state current		5	mA	
V_{TM}	On-state voltage	$I_T=100\text{A}; t_p=380\ \mu\text{s}$		1.9	V
I_{GT}	Gate-trigger current	$V_D=12\text{V}; R_L=33\ \Omega$		80	mA
V_{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	$^{\circ}\text{C}/\text{W}$