

# isc Thyristors

### INCHANGE SEMICONDUCTOR

## BTW69-700RG

#### 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(Ta=25°C)

SYMBOL	PARAMETER		МАХ	UNIT
V <sub>DRM</sub>	Repetitive peak off-state voltage			V
V <sub>RRM</sub>	Repetitive peak reverse voltage			V
I <sub>T(RSM)</sub>	Average on-state current @Tc=	state current @Tc=75℃		А
I <sub>TSM</sub>	Surge non-repetitive on-state current	50Hz 60Hz		А
$P_{G(AV)}$	Average gate power dissipation ( over any 20 ms period ) @Tc=125 $^\circ\!\!\mathbb{C}$			W
Tj	Operating junction temperature			°C
T <sub>stg</sub>	Storage temperature			°C

#### **ELECTRICAL CHARACTERISTICS (Tc=25°C** unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS		MIN	MAX	UNIT
I <sub>RRM</sub>	Repetitive peak reverse current	V <sub>R</sub> =V <sub>RRM</sub> Rated;	<b>Tj=25</b> ℃		10	μ <b>Α</b>
I <sub>DRM</sub>	Repetitive peak off-state current	V <sub>D</sub> =V <sub>DRM</sub> Rated;	Tj=125℃		5	mA
V <sub>TM</sub>	On-state voltage	I <sub>T</sub> =100A;t <sub>P</sub> =380 μ s			1.9	V
I <sub>GT</sub>	Gate-trigger current	V <sub>D</sub> =12V;R <sub>L</sub> =33 Ω			80	mA
$V_{\text{GT}}$	Gate-trigger voltage	V <sub>D</sub> =12V;R <sub>L</sub> =33 Ω			1.3	V
Rth (j-c)	Junction to case	For AC			0.9	°C/W

isc website: <u>www.iscsemi.com</u>

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