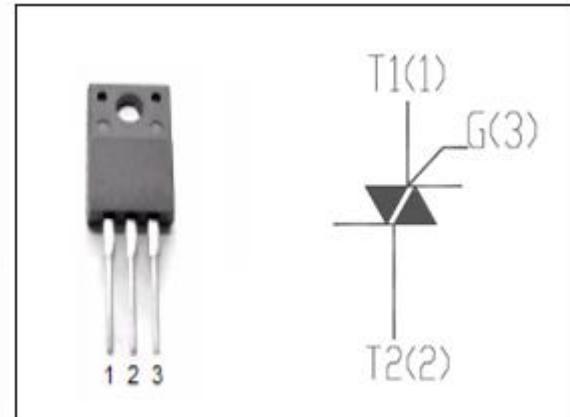


**isc Thyristors**
**BCR12PM-12LG**
**DESCRIPTION**

- With TO-220F packaging
- Operating in 3 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	
$V_{DRM}$	Repetitive peak off-state voltage	600	V	
$V_{RRM}$	Repetitive peak reverse voltage	600	V	
$I_{T(RSM)}$	Average on-state current @ $T_c=92^\circ\text{C}$	12	A	
$I_{TSM}$	Surge non-repetitive on-state current	60HZ	120	A
$P_{G(AV)}$	Average gate power dissipation ( over any 20 ms period )	0.5	W	
$T_j$	Operating junction temperature	-40~150	°C	
$T_{stg}$	Storage temperature	-40~150	°C	

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$I_{RRM}$	Repetitive peak reverse current	$V_R=V_{RRM}$ Rated; $V_D=V_{DRM}$ Rated;	$T_j=150^\circ\text{C}$	2000	$\mu\text{ A}$
$I_{DRM}$	Repetitive peak off-state current				
$V_{TM}$	On-state voltage	$I_T=20\text{A}$		1.5	V
$I_{GT}$	Gate-trigger current	$V_D = 6\text{V}; R_L = 6 \Omega; RG = 330 \Omega$	I	30	mA
			II	30	
			III	30	
$V_{GT}$	Gate-trigger voltage	$V_D = 6\text{V}; R_L = 6 \Omega; RG = 330 \Omega$		1.5	V
$R_{th(j-c)}$	Junction to case	Half cycle		4.0	°C/W