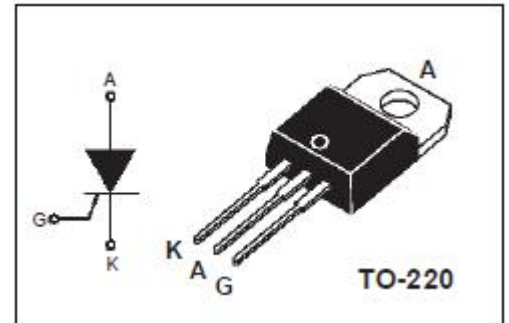


## isc Thyristors

## T1210T-8T

## APPLICATIONS

- With TO-220AB package.
- General purpose AC line load switching
- Motor control circuits
- Small home appliances
- Lighting
- Inrush current limiting circuits
- Overvoltage crowbar protection
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

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

SYMBOL	PARAMETER	MIN	UNIT
$V_{\text{DRM}}$	Repetitive peak off-state voltage @ $T_j=125^\circ\text{C}$ @ $T_j=150^\circ\text{C}$	800 600	V
$V_{\text{RRM}}$	Repetitive peak reverse voltage @ $T_j=125^\circ\text{C}$ @ $T_j=150^\circ\text{C}$	800 600	V
$I_{\text{T(RMS)}}$	RMS on-state current @ $T_c=131^\circ\text{C}$	12	A
$I_{\text{TSM}}$	Surge non-repetitive on-state current F=50HZ; t=20ms F=60HZ; 16.7ms	90 95	A
$P_{\text{G(AV)}}$	Average gate power dissipation @ $T_j=150^\circ\text{C}$	1	W
$T_j$	Operating junction temperature	-40~150	$^\circ\text{C}$
$T_{\text{stg}}$	Storage temperature	-40~150	$^\circ\text{C}$

**isc Thyristors**
**T1210T-8T**
**ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=25°C unless otherwise specified)**

SYMBOL	PARAMETER	CONDITIONS		MIN	MAX	UNIT
I <sub>RRM</sub>	Repetitive peak reverse current	V <sub>RM</sub> =V <sub>R RM</sub>	T <sub>j</sub> =25°C		7.5	μ A
			T <sub>j</sub> =125°C		1.0	mA
			T <sub>j</sub> =150°C		2.7	mA
I <sub>DRM</sub>	Repetitive peak off-state current	V <sub>DM</sub> =V <sub>DRM</sub>	T <sub>j</sub> =25°C		7.5	μ A
			T <sub>j</sub> =125°C		1.0	mA
			T <sub>j</sub> =150°C		2.7	mA
V <sub>TM</sub>	On-state voltage	I <sub>TM</sub> = 17A; t <sub>p</sub> =380 μ s			1.55	V
I <sub>GT</sub>	Gate-trigger current ( minimum IGT is guaranteed at 5% of IGT max ) Quadrant(I - II - III)	V <sub>D</sub> = 12 V;R <sub>L</sub> =30 Ω			35	mA
V <sub>GT</sub>	Gate-trigger voltage Quadrant (I - II - III)	V <sub>D</sub> = 12 V;R <sub>L</sub> =30 Ω			1.0	V

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
R <sub>th(j-c)</sub>	Thermal resistance	Junction to case		1.3	°C/W
R <sub>th(j-a)</sub>	Thermal resistance	Junction to case		60	°C/W

**NOTICE:**

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