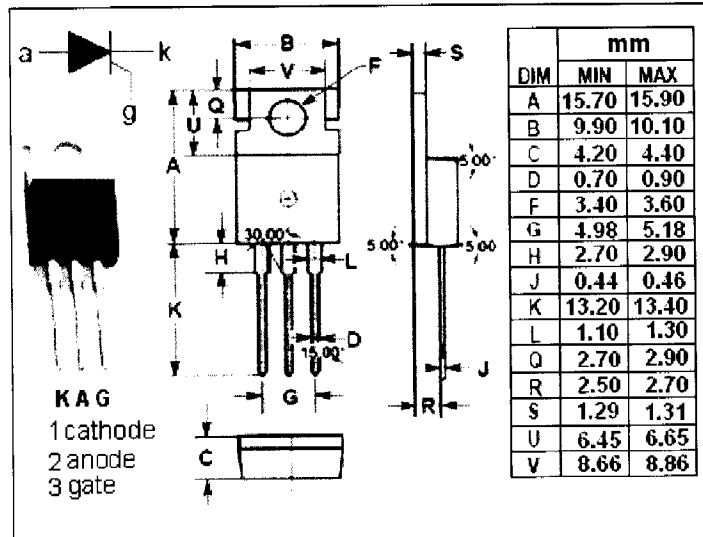


Thyristors

BT151-500

APPLICATIONS

- For use in applications requiring high bidirectional blocking voltage capability and high thermal cycling performance. Typical applications include motor control, industrial and domestic lighting, heating and static switching.



ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)

SYMBOL	PARAMETER	MIN	UNIT
V <sub>DRM</sub>	Repetitive peak off-state voltage	500	V
V <sub>RRM</sub>	Repetitive peak reverse voltage	500	V
I <sub>T(AV)</sub>	Average on-state current	8	A
I <sub>T(RMS)</sub>	RMS on-state current	12	A
I <sub>TSM</sub>	Surge non-repetitive on-state current	100	A
P <sub>GM</sub>	Peak gate power dissipation	5	W
P <sub>G(AV)</sub>	Average gate power dissipation	0.5	W
T <sub>j</sub>	Operating junction temperature	125	°C
T <sub>stg</sub>	Storage temperature	-45~150	°C

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>RRM</sub> , V <sub>RM</sub> =V <sub>RRM</sub> , T <sub>j</sub> =125°C		0.02 0.5	mA
I <sub>DRM</sub>	Repetitive peak off-state current	V <sub>DM</sub> =V <sub>DRM</sub> , V <sub>DM</sub> =V <sub>DRM</sub> , T <sub>j</sub> =125°C		0.02 0.5	mA
V <sub>TM</sub>	On-state voltage	I <sub>TM</sub> = 23A		1.75	V
I <sub>GT</sub>	Gate-trigger current	V <sub>D</sub> = 12V; I <sub>T</sub> = 0.1A		8	mA
V <sub>GT</sub>	Gate-trigger voltage	V <sub>D</sub> = 12V; I <sub>T</sub> = 0.1A		1.5	V
I <sub>H</sub>	Holding current	I <sub>T</sub> = 0.1A; Gate Open		20	mA
R <sub>th(j-c)</sub>	Thermal resistance	Junction to case		1.6	°C/W

