

**Features:**

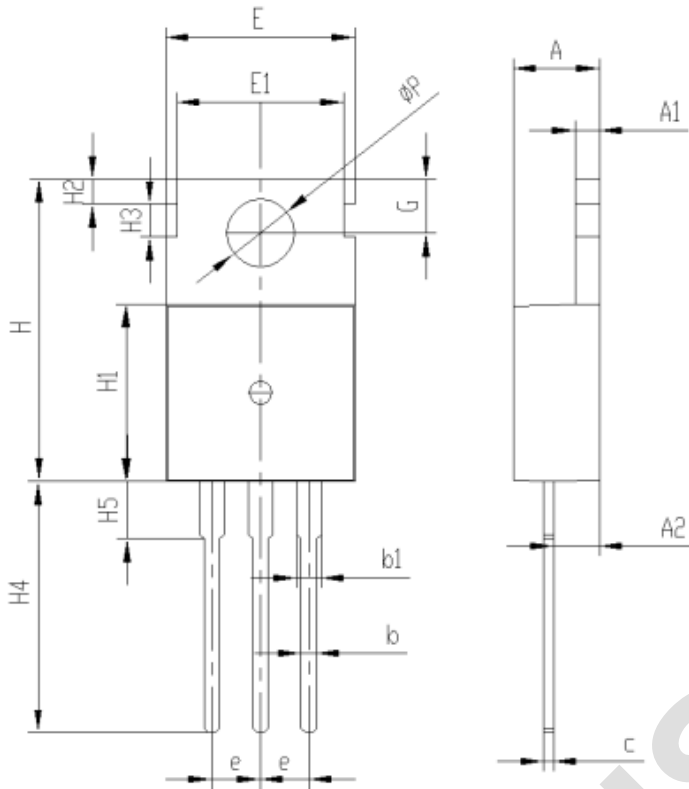
- n Two anti-parallel thyristors on one Si-wafer
- n Hermetic metal cases with ceramic insulators
- n Capsule packages for double sided cooling

**Typical Applications**

- n High power industrial and power transmissior
- n DC and AC motor control
- n AC controllers

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T <sub>j</sub> (°C)	VALUE			UNIT
				Min	Type	Max	
I <sub>T(RMS)</sub>	RMS current	full sine wave Single side cooled, T <sub>C</sub> =25°C	25			24	A
V <sub>DRM</sub> V <sub>RRM</sub>	Repetitive peak reverse voltage	V <sub>DRM</sub> tp=10ms V <sub>DSM</sub> = V <sub>DRM</sub> +100V	150			800	V
I <sub>DRM</sub>	Repetitive peak current	V <sub>DM</sub> = V <sub>DRM</sub>	25		5		µA
I <sub>RRM</sub>	Repetitive peak current	V <sub>RM</sub> = V <sub>RRM</sub>			2		mA
I <sub>TSM</sub>	Surge on-state current	10ms half sine wave V <sub>R</sub> =0.6V <sub>RRM</sub>	25			240	A
I <sup>2</sup> t	I <sup>2</sup> T for fusing coordination					288	A <sup>2</sup> s
V <sub>TM</sub>	Peak on-state voltage	I <sub>TM</sub> =48A, tp=380µs	25		1.45		V
dv/dt	Critical rate of rise of off-state voltage	V <sub>DM</sub> =0.67V <sub>DRM</sub> gate open	125	500			V/µs
(dv/dt)/c		Without snubber	125	20			V/µs
di/dt	Critical rate of rise of on-state current	I <sub>G</sub> =2*I <sub>GT</sub>	25	100			A/µs
I <sub>GT</sub>	Gate trigger current	V <sub>D</sub> =12V <sub>DC</sub> , R <sub>L</sub> =33Ω I - II -III	25			35	mA
V <sub>GT</sub>	Gate trigger voltage					1.3	V
V <sub>GD</sub>	Non-trigger gate voltage	V <sub>D</sub> =V <sub>DRM</sub> , R <sub>L</sub> =33Ω	125	0.2			
I <sub>L</sub>	Latching current	I <sub>G</sub> =1.2I <sub>GT</sub>	25	I -III		80	mA
				II		100	mA
I <sub>H</sub>	Holding current	V <sub>D</sub> =12V <sub>DC</sub> , R <sub>L</sub> =33Ω	25	10			mA
I <sub>GM</sub>	Peak gate current	tp=20µs	25			8	A
P <sub>GM</sub>	Peak gate power	tp=20µs	25			10	w
P <sub>G(AV)</sub>	Average gate power dissipation		25			2	w
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	Single side cooled				0.5	°C /W
T <sub>j</sub>	Operating Junction temperature			-40		125	°C
T <sub>stg</sub>	Stored temperature			-40		150	°C
Outline	TO-220C						

Outline:



Symbol	Dimensions (millimeters)	
	Min.	Max.
A	4.30	4.70
A1	1.17	1.37
A2	2.20	2.60
b	0.60	1.00
b1	1.17	1.37
b2	1.90	2.30
c	0.30	0.70
e	2.34	2.74
E	9.70	10.1
E1	8.50	8.90
H	15.5	15.9
H1	9.00	9.40
H2	1.10	1.50
H3	1.50	1.90
H4	12.58	13.58
H5	2.80	3.20
G	2.60	3.00
ΦP	3.40	3.80