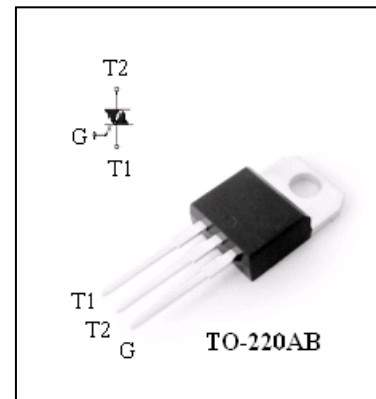


● **Package**

TO-220AB IN TUBE

● **Main Feature** (T<sub>j</sub>=25°C)

Symbol	Value	Unit
I <sub>T(RMS)</sub>	16	A
V <sub>DRM</sub> / V <sub>RSM</sub>	≥600	V
I <sub>TSM</sub>	160	A



● **Absolute ratings (Limiting Values)**

Symbol	Parameter	Value	Unit	
I <sub>T(RMS)</sub>	Rms on-state current(full sine wave)	16	A	
I <sub>TSM</sub>	Non- repetitive Peak on-state Current (T <sub>j</sub> =25°C, tp=20ms)	160	A	
I <sup>2</sup> t	I <sup>2</sup> t for fusing(tp=10ms)	140	A <sup>2</sup> S	
I <sub>GM</sub>	Peak gate current	4	A	
V <sub>GM</sub>	Peak gate voltage	16	V	
P <sub>GM</sub>	Peak gate power	40	W	
P <sub>G(AV)</sub>	Average gate power	1	W	
dT <sub>T</sub> /dt	Repetitive rate of rise of on-state current after triggering (I <sub>T</sub> =6A, I <sub>G</sub> =0.2A, dI <sub>G</sub> /dt=0.2A/us)	I - II - III	50	A/μs
		IV	50	
T <sub>stg</sub>	Storage temperature	-40--+150	°C	
T <sub>j</sub>	Operating junction temperature	-40--+125		

● **Thermal Resistances**

Symbol	Parameter	Condition	Type	Unit
R <sub>th j-c</sub>	Thermal Resistance, Junction to case	One cycle	2.1	°C/W
R <sub>th j-a</sub>	Thermal Resistance, Junction to ambient	—	60	°C/W

● **Electrical characteristics (T<sub>j</sub>=25°C unless otherwise stated)**

Symbol	Test Conditions	Type	Max	Unit
I <sub>GT</sub>	BTA/BTB- V <sub>D</sub> =12V I <sub>T</sub> =0.1A T2+ G+ T2+ G- T2- G-	20	50	mA
		30	60	mA
		30	60	mA
I <sub>H</sub>	V <sub>D</sub> =12V I <sub>GT</sub> =0.1A		50	mA
V <sub>TM</sub>	I <sub>T</sub> =20A	—1.4—	1.7	V
I <sub>DRM</sub>	V <sub>DRM</sub> =800V		10	μA
I <sub>RRM</sub>	V <sub>RRM</sub> =800V		10	μA
V <sub>GT</sub>	V <sub>D</sub> =12V I <sub>T</sub> =0.1A T <sub>j</sub> =125°C	—	1.65	V
I <sub>D</sub>	V <sub>D</sub> =V <sub>DRM (MAX)</sub> T <sub>j</sub> =125°C	—	0.5	mA

● **Dynamic characteristics (T<sub>j</sub>=25°C unless otherwise stated)**

Symbol	Test Conditions	Type	Min	Max	Unit
dV/dt	V <sub>DM</sub> =67%V <sub>Dm (MAX)</sub> T <sub>j</sub> =110°C	400	200	—	V/μs
(dV/dt) <sub>c</sub>	(dI/dt) <sub>c</sub> =7A/ms T <sub>j</sub> =125°C	—	5	10	μs

● Measure of package TO-220AB :

