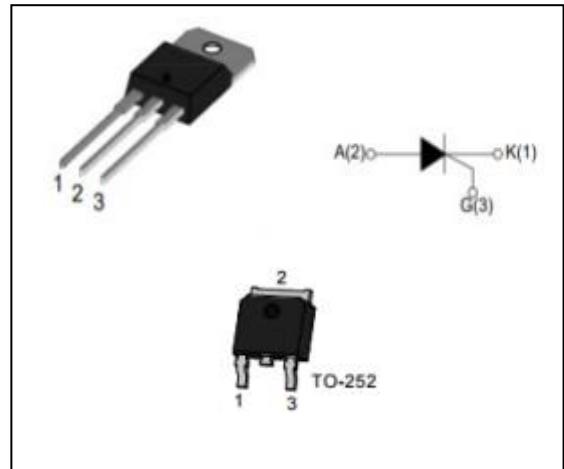


## Unidirectional thyristors

### Feature

PNPN four-layer structure silicon  
 unidirectional device; Single-sided grooving  
 technology with independent intellectual  
 property rights, countertop glass passivation  
 process; Multilayer metallized electrode on the  
 back; It has high blocking voltage and high  
 temperature stability;



### Applications

Motor speed control controllers such as vacuum  
 cleaners and power tools;  
 Solid state relays; heating controller (temperature regulation); Other phased circuitry

**Absolute Maximum Ratings** TA=25°C Unless Otherwise noted

Symbol	Parameter	value	Units
I <sub>T(RMS)</sub>	RMS on-State Current	8	A
I <sub>TSM</sub>	Non-Repetitive Peak On-State	80	A
I <sup>2</sup> t	I <sup>2</sup> t for Fusing	64	A <sup>2</sup> S
di/dt	Repetitive Rate of Rise of On-State Current After Triggering	50	A/us
V <sub>DRM/V<sub>RRM</sub></sub>	Repetitive Peak Off-State Voltages	800	V
I <sub>GM</sub>	Peak Gate Current	4	A
P <sub>G(AV)</sub>	Average Gate Power	1	W
T <sub>stg</sub> T <sub>j</sub>	Storage Temperature Operating Junction Temperature	-40 to +150 -40 to +125	°C

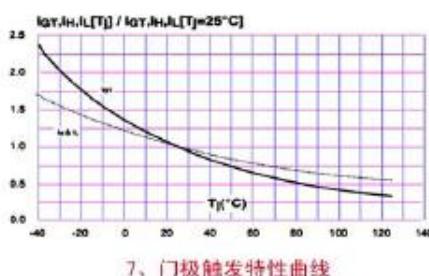
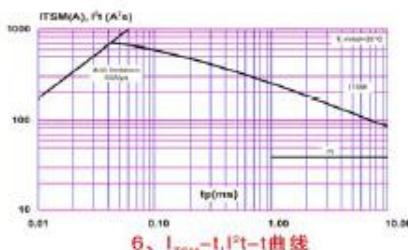
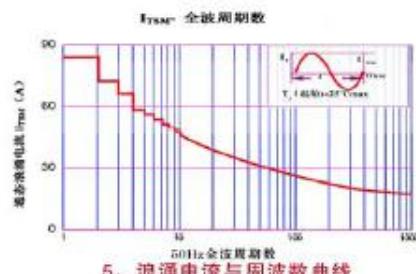
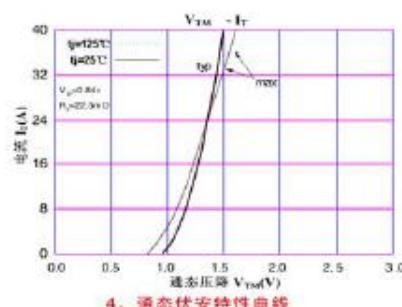
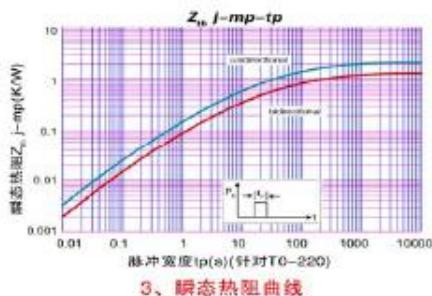
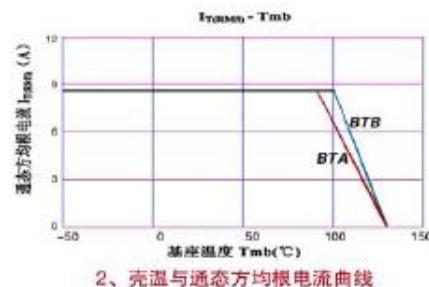
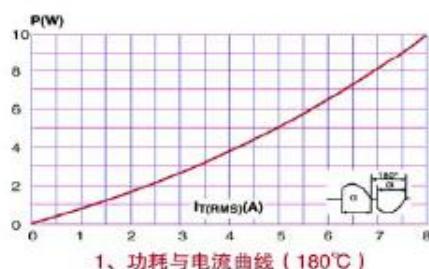
## ●电特性

Symbol	PARAMETER AND CONDITIONS	Quadrant		value	Units
I <sub>GT</sub>	Gate Trigger Current V <sub>D</sub> =12V R <sub>L</sub> =100Ω Gate Trigger Voltage	I	MAX	15	mA
V <sub>GT</sub>			MAX	1.5	V
V <sub>GD</sub>	Non-triggering gate voltage T <sub>j</sub> =125°C		MIN	0.2	V
I <sub>H</sub>	Holding Current I <sub>T</sub> =0.5A		MAX	30	mA
I <sub>L</sub>	Latching Current I <sub>G</sub> =1.2I <sub>GT</sub>	I	MAX	30	mA
				40	
dV/dt	Critical rate of rise of off-state voltage V <sub>D</sub> =2/3V <sub>DRM</sub> , T <sub>j</sub> =125°C		MIN	500	V/us
(dV/dt)c	T <sub>j</sub> =125°C		MIN	10	V/us

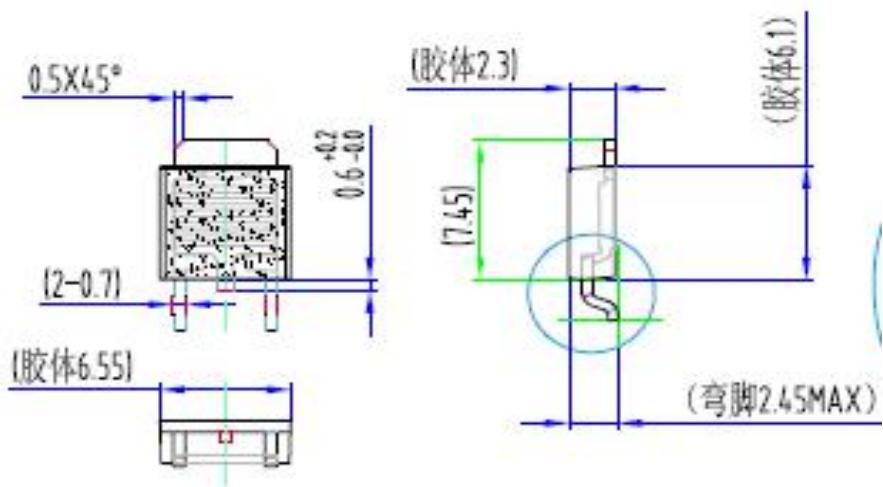
## ●静态参数

Symbol	PARAMETER AND CONDITIONS			value	Units
V <sub>TM</sub>	Peak on-state voltage I <sub>TM</sub> = 24A	T <sub>j</sub> =25°C	MAX	1.5	V
V <sub>T0</sub>	Forward On-State Voltage	T <sub>j</sub> =125°C	MAX	0.86	V
R <sub>d</sub>	Slope resistance	T <sub>j</sub> =125°C	MAX	36.6	mΩ
I <sub>DRM</sub> I <sub>RRM</sub>	Peak Repetitive Blocking Current Peak Repetitive Reverse Current	T <sub>j</sub> =25°C T <sub>j</sub> =125°C	MAX	5	uA
				1	mA
R <sub>th(j-c)</sub>	Thermal resistance, junction to case	BTB		1.75	°C/W

● BT151 特性曲线：



● TO-252



● TO-220

