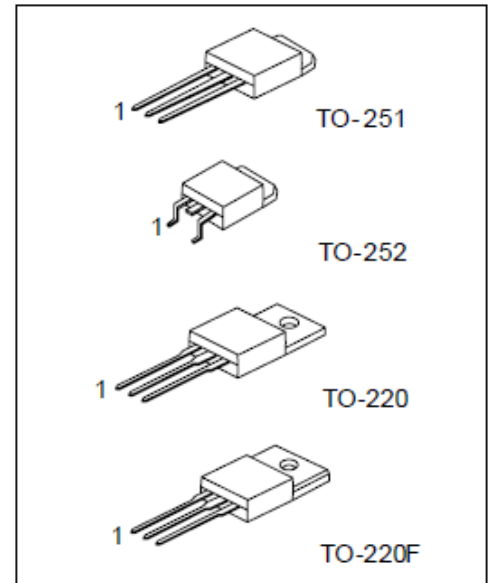


BT152主要用于摩托车电压调节器、点火器电路中；还可广泛应用于各种万能开关器、小型马达控制器、彩灯控制器、漏电保护器、灯具继电器激励器、逻辑集成电路驱动、大功率可控硅门极驱动等线路控制。



## 1、特点

- 通态压降低
- 断态重复峰值电压高
- 触发灵敏度高
- 可靠性好
- 封装形式: TO-220 TO-220F TO-251 TO-252

## 2、电特性

极限参数 (Ta=25℃)

参数名称	符号	额定值	单位
断态重复峰值电压	$V_{DRM}$	600	V
反向重复峰值电压	$V_{RRM}$	600	V
通态平均电流	$I_{T(AV)}$	12	A
通态峰值电流	$I_{T(RMS)}$	20	A
通态不重复浪涌电流	$I_{TSM}$	120	A
结温	$T_J$	125	℃
贮存温度	$T_{atg}$	-40 ~ 125	℃

电参数 (Ta=25℃)

参数名称	符号	单位	规范值			测试条件
			最小值	典型值	最大值	
断态重复峰值电压	$V_{DRM}$	V	600	650		$I_D=0.1mA$
反向重复峰值电压	$V_{RRM}$	V	600	650		$I_A=0.1mA$
断态重复峰值电流	$I_{DRM}$	$\mu A$			20	$V_{DRM}=600V$

通态峰值电压	$V_{TM}$	V		1.4	1.7	$I_T=24A$
维持电流	$I_H$	mA		15	20	$I_T=0.2A, I_{GT}=30mA$
关闭电流	$I_L$	mA		25	80	$V_D=12V, I_{CT}=0.1A$
控制极触发电流※	$I_{GT}$	mA		5	10	$V_D=6V, R_L=100\Omega$
控制极触发电压	$V_{GT}$	V			1.5	$V_D=6V, R_L=100\Omega$
控制极最大电流	$I_{GM}$	A			2	
控制极最高电压	$V_{GM}$	V			5	
控制极最高反向电压	$V_{RGM}$	V			5	
上升速率	$V_D/dt$	V/ $\mu s$	200	300		$V_{DM}=67\%V_{DRM(MAX)}, R_{GK}=100\Omega, I_G=0$
上升速率	$I_T/dt$	A/ $\mu s$			200	$I_T=50A, I_G=0.2A, dI_G/dt=0.2A/\mu s$
控制极不触发电压	$V_{GD}$	V	2			$V_{DRM}=400V, R_{GK}=1K\Omega, T_j=125^\circ C$

※：该参数与环境温度有关

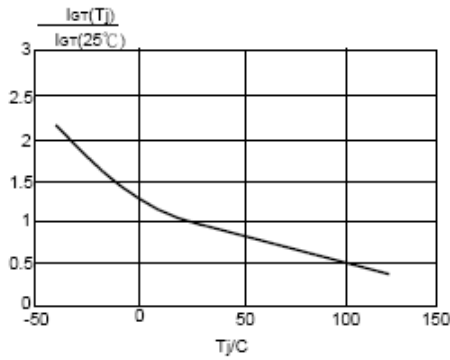


Fig. 7. Normalised gate trigger Current  $I_{GT}(T_j)/I_{GT}(25^\circ\text{C})$ , versus junction temperature  $T_j$

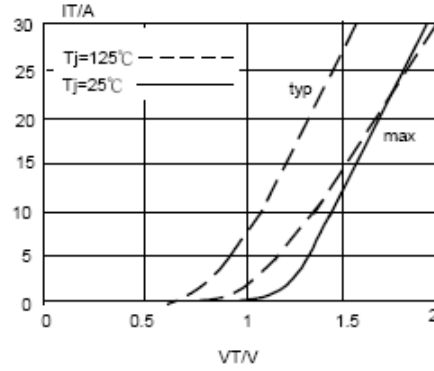


Fig. 10. Typical and maximum on-state characteristic.

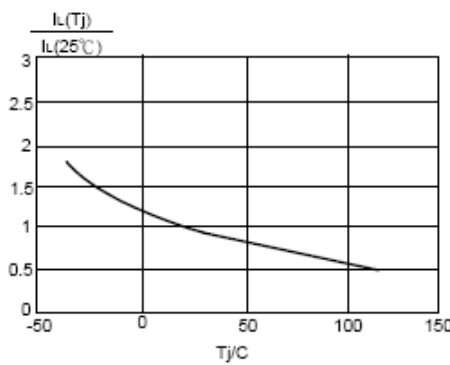


Fig. 8. Normalised latching Current  $I_L(T_j)/I_L(25^\circ\text{C})$ , versus junction temperature  $T_j$

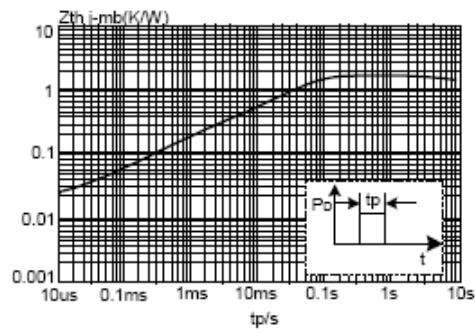


Fig. 11. Transient thermal impedance  $Z_{th(i-mb)}$ , versus pulse width  $t_p$ .

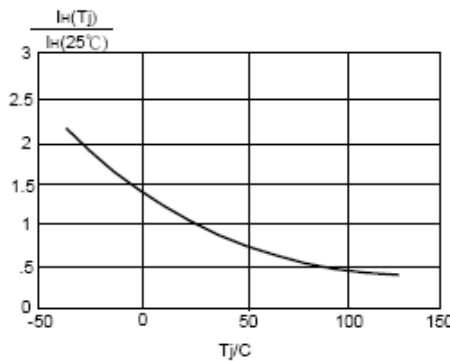


Fig. 9. Normalised holding current  $I_H(T_j)/I_H(25^\circ\text{C})$ , versus junction temperature  $T_j$

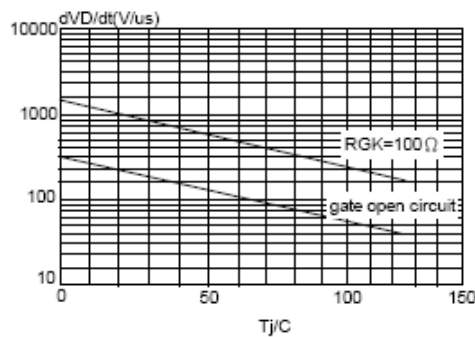


Fig. 12. Typical, critical rate of rise of off-state voltage,  $dV_p/dt$  versus junction temperature  $T_j$

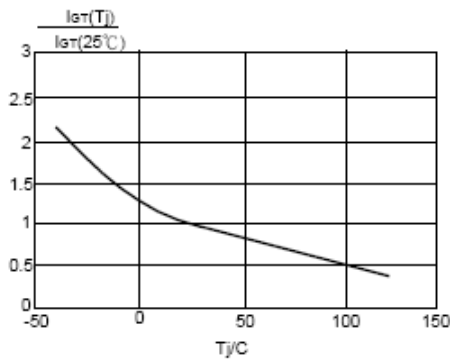


Fig. 7. Normalised gate trigger Current  $I_{GT}(T_J)/I_{GT}(25^{\circ}C)$ , versus junction temperature  $T_J$

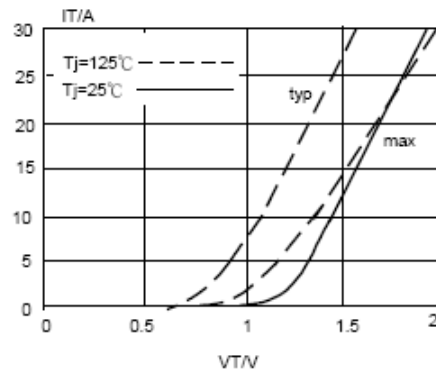


Fig. 10. Typical and maximum on-state characteristic.

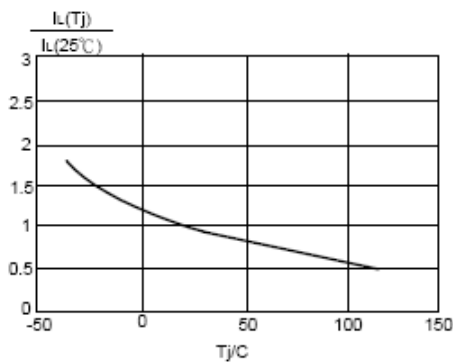


Fig. 8. Normalised latching Current  $I_L(T_J)/I_L(25^{\circ}C)$ , versus junction temperature  $T_J$

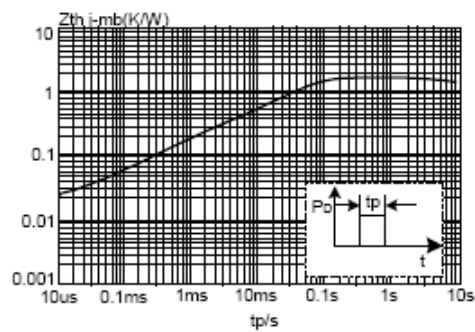


Fig. 11. Transient thermal impedance  $Z_{thj-mb}$ , versus pulse width  $t_p$ .

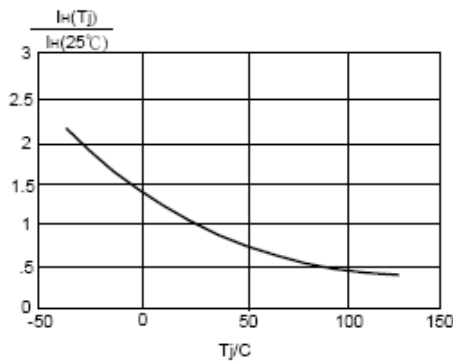


Fig. 9. Normalised holding current  $I_H(T_J)/I_H(25^{\circ}C)$ , versus junction temperature  $T_J$

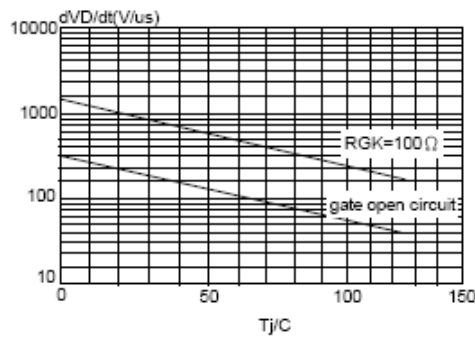


Fig. 12. Typical, critical rate of rise of off-state voltage,  $dV_D/dt$  versus junction temperature  $T_J$ .