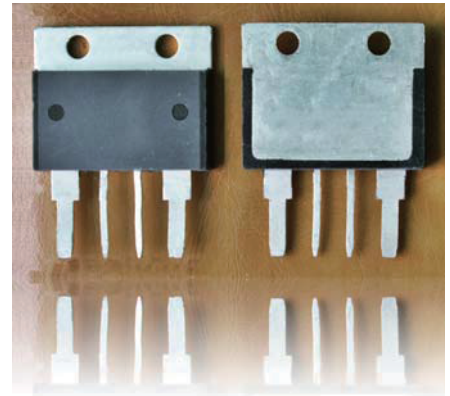


產品特性：NPNPN五層結構的硅雙向器件，具有自主知識產權的單面挖槽技術，極面玻璃鈍化工藝；
背面多層金屬化電極；具有較高有阻斷電壓、較高的溫度穩定性；大電流、絕緣型封裝。
主要用於：加熱控制器、調溫設備、彩燈控制器、固態繼電器、吸塵器、電動工具、馬達調速控制器；其它相控電路。

Part Number	$I_{T(RMS)}$	V_{RMD} / V_{RRM}	I_{GT}	Package
BTA100-600B	100A	600V	$\leq 50mA$	TOP4
BTA100-800B		800V		
BTA100-1000B		1000V		
BTA100-1200B		1200V		
BTA100-1400B		1400V		
BTA100-1600B		1600V		
BTA100-1800B*		1800V*		

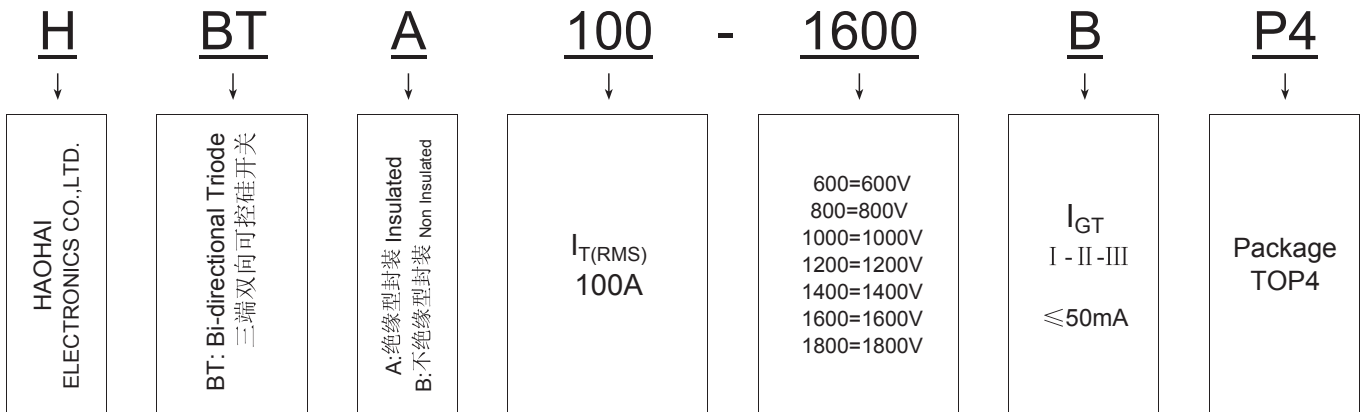
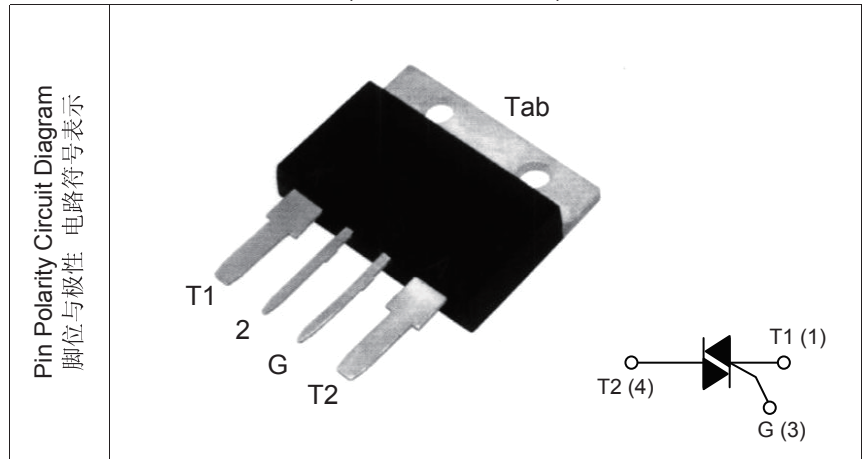


* 未量产

■ PINNING: Insulated Package

Pin 管脚排列	Symbol 对应极性	Description 极性含义
1	T1	第一陽極
2		
3	G	門-控制極
4	T2	第二陽極
5	Tab	散熱片

TOP4 (TO-4PT or TO-228) 绝缘型封装



■ ABSOLUTE MAXIMUM RATINGS

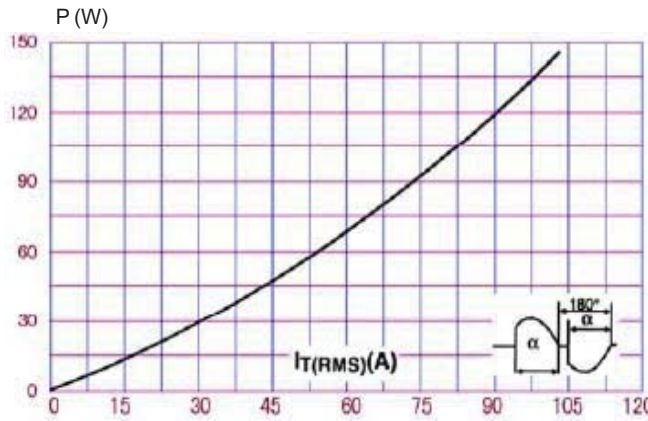
SYMBOL	Signification in Symbol		Test Conditions	Value	Unit
$I_{T(RMS)}$	RMS On-state Current (full sine wave)		$T_C=80^\circ C$	100	A
I_{TSM}	Non Repetitive Surge Peak on-state Current		$T_J=25^\circ C, f=60Hz$	1000	
I_{GM}	Peak Gate Current		$tp=20\mu s, T_J=125^\circ C$	8	
I^2t	I^2t Value for Fusing Consideration		$tp=10mS, T_J=25^\circ C$	6400	A^2ses
V_{DRM}	Repetitive peak off-state Voltages	见型号对照列表	$T_J=25^\circ C$	600~1800	V
V_{RRM}	Repetitive peak Reverse Voltages	见型号对照列表	$T_J=25^\circ C$		
$P_{G(AV)}$	Average gate power dissipation		$T_J=25^\circ C$	1	W
T_J	Operating Junction Temperature Range			-40 ~ +125	$^\circ C$
T_{stg}	Storage Junction Temperature Range			-40 ~ +150	
$R_{th(j-c)}$	Thermal Resistance-Junction-to-Case		TOP4	0.9	$^\circ C/W$
$R_{th(j-a)}$	Thermal Resistance-Junction-to-Ambient			50	

■ 绝缘电阻特征: ISOLATION LIMITING VALUE & CHARACTERISTIC ($T_{hs}=25^\circ C$ unless otherwise specified)

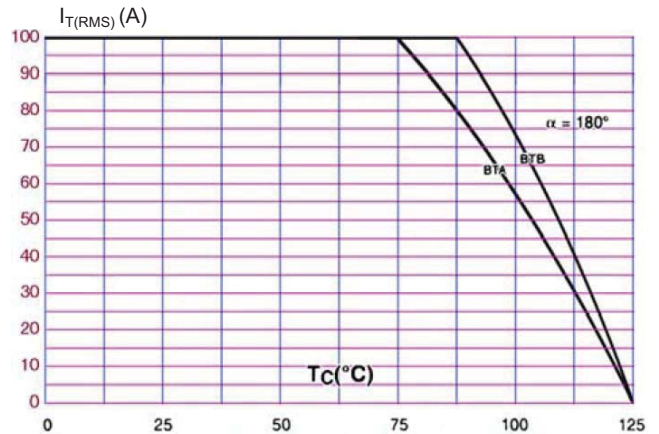
■ STATIC CHARACTERISTICS

SYMBOL	Parameter & Test Conditions	Quadrant	Value			Unit 单位
			Min	Typ	Max	
I_{GT}	$V_D=12V, R_L=30\Omega$	I (T2+G+)	--	25	50	mA
		II (T2+G-)	--	25	50	
		III(T2-G-)	--	26	50	
		IV(T2-G+)	--	50	100	
I_H	$I_T=500mA$	ALL	--	--	80	
I_L	$I_G=1.2 I_{GT}$	I, II, III	--	--	60	
		IV	--	--	100	
dV/dt	$V_D=2/3 V_{DRM}$ gate open	$T_J=125^\circ C$	500	--	--	V/ μs
$(dv/dt)C$	Without snubber	$T_J=125^\circ C$	10	--	--	
di/dt	Critical Rate of Rise of On-State Current	$T_J=125^\circ C$	--	50	--	A/ μs
R_D	Dynamic resistance slops Resistance	$T_J=125^\circ C$	--	--	25	m Ω
V_{GT}	$V_D=12V, R_L=30\Omega, T_J=25^\circ C$	ALL	--	--	1.5	V
V_{GD}	$V_D=12V_{DC}, R_L=30\Omega, T_J=25^\circ C$	ALL	--	--	0.2	
V_{TO}	$I_{TM}=82A, tp=380\mu s$	ALL	--	--	0.86	
V_{TM}	$I_{TM}=82A, tp=380\mu s$	$T_J=25^\circ C$	--	--	1.55	
I_{DRM}	$V_D=V_{DRM}, V_R=V_{RRM}$	$T_J=25^\circ C$	--	--	10	μA
I_{RRM}	$V_D=V_{DRM}, V_R=V_{RRM}$	$T_J=125^\circ C$	--	--	2	mA

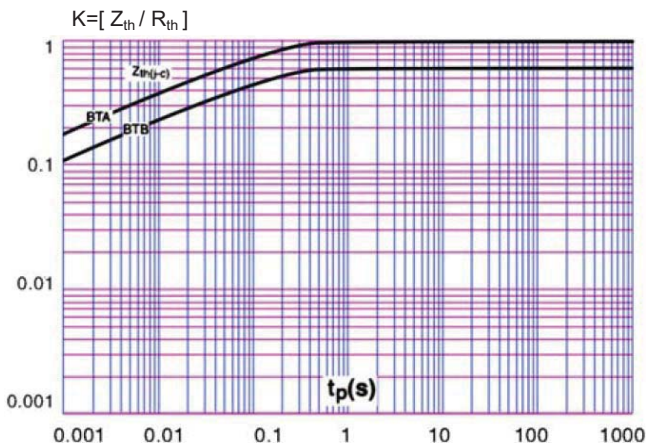
1、功耗与电流曲线 (180°C)



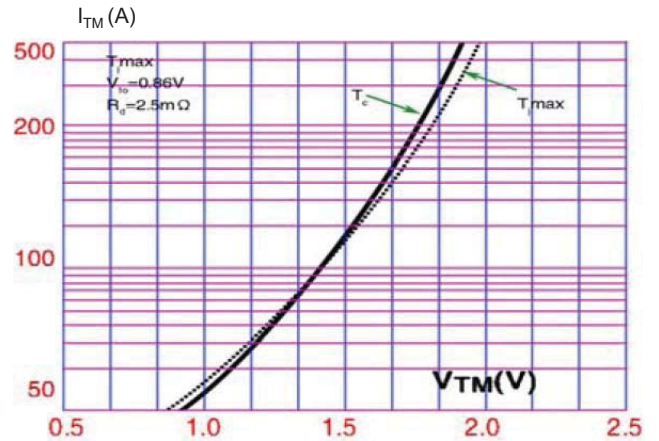
2、壳与通态均方根电流曲线



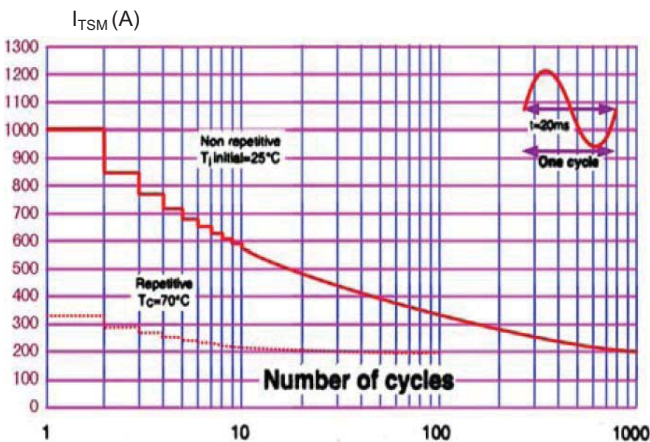
3、瞬态热阻曲线



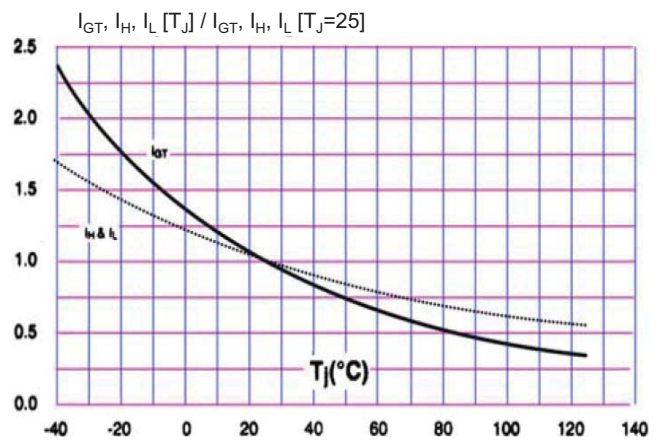
4、通态伏安特性曲线



5、浪涌电流与周波数曲线



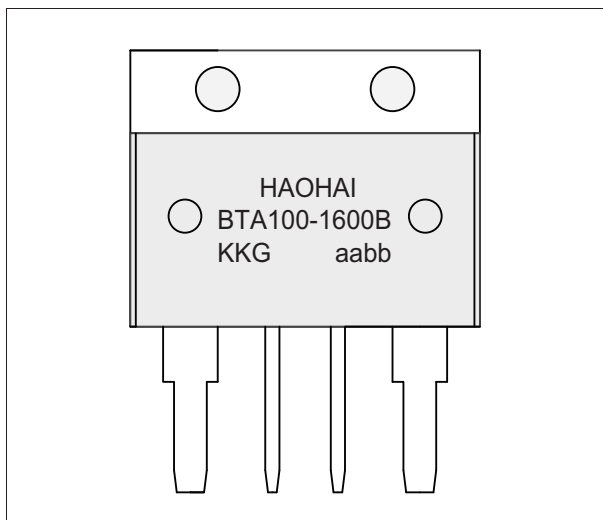
6、门极触发特性曲线



TOP4 PACKAGE MECHANICAL DATA (mm & inch)

TOP4 封装尺寸数据 (毫米与英寸对照)

	REF	Dimensions			
		Millimeters		Inches	
		Min.	Max.	Min.	Max.
正面	A	15.43	16.76	0.607	0.660
	B	31.05	32.15	1.222	1.266
	C	21.80	21.98	0.656	0.708
	D	16.65	17.98	0.656	0.708
	E	6.83	8.06	0.269	0.317
	G	2.96	4.10	0.117	0.161
	H	4.65	5.36	0.183	0.211
	J	24.06	25.38	0.947	0.999
	K	14.16	15.36	0.557	0.605
	M	20.76	22.10	0.817	0.870
背面	L	4.47	5.23	0.176	0.206
	Q	2.89	3.35	0.114	0.132
	P	1.14	1.56	0.045	0.061
	Φ1	2.78	4.01	0.109	0.158
	Φ2	3.95	5.19	0.158	0.204



<p>打印标识 HAOHAI: 浩海电子 XXXXXXXXXX: 器件型号 KKG: 注册商标 aa: 出厂年份 bb: 出厂自然周 (01~53)</p> <p>Marking HAOHAI ELECTRONICS XXXXXXXXXX: Part Number KKG: Registered trademark aa: Factory Year bb: Factory natural Week (01~53)</p>	<p>包装规格 TOP4 条管装、纸盒装 每管15只 每盒300只</p> <p>Packaging Specifications TOP4 Plastic tube 15Pcs/Tub 300cs/BOX</p>
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Manufacturers version information

2006-09-01, KKG™ Product Data-1.1
2019-04-25, KKG™ Product Data-1.2
2011-06-10, KKG™ Product Data-1.3
2015-12-10, KKG™ Product Data-1.4



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深圳市浩海电子有限公司

SHENZHEN HAOHAI ELECTRONICS CO., LTD.

2 floor(whole floor), BAOXIN Building. 0 Lane on the 8th. Yufeng Garden.
82 District. BAOAN District, Shenzhen City, Guangdong Province, China.

公司电话 TEL: +86-755-29955080、29955081、29955082、29955083

FAX: +86-755-27801767

产品主页: <http://www.szhhe.com>

E-mail: kkg@kkg.com.cn

<http://www.kkg.com.cn>