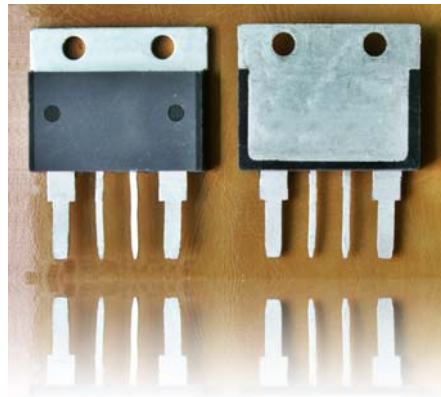


產品特性：NPNPN五層結構的硅雙向器件，具有自主知識產權的單面挖槽技術，檯面玻璃鈍化工藝；背面多層金屬化電極；具有較高有阻斷電壓、較高的溫度穩定性；大電流、絕緣型封裝。
主要用於：加熱控制器、調溫設備、彩燈控制器、固態繼電器、吸塵器、電動工具、馬達調速控制器；其它相控電路。

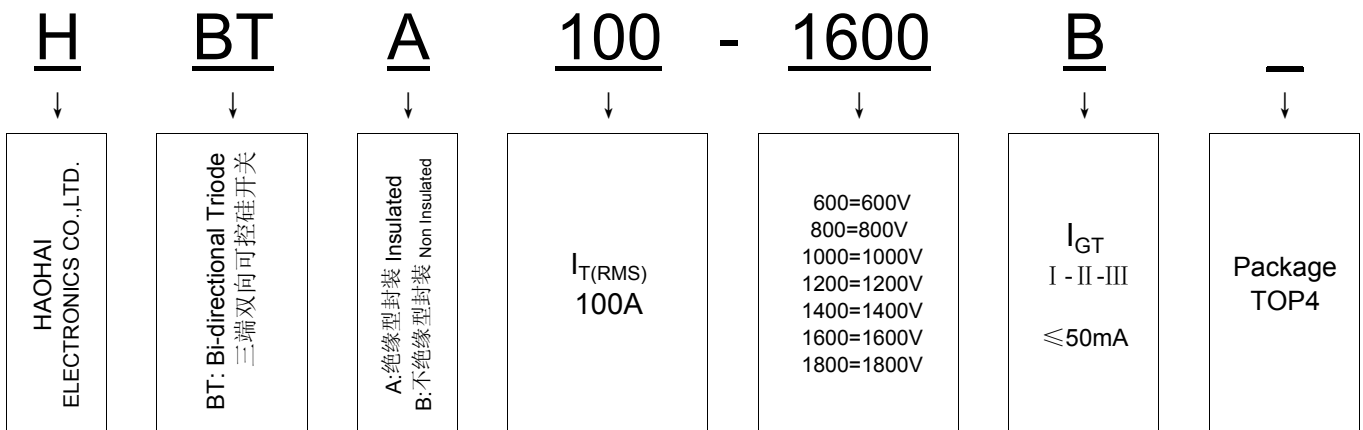
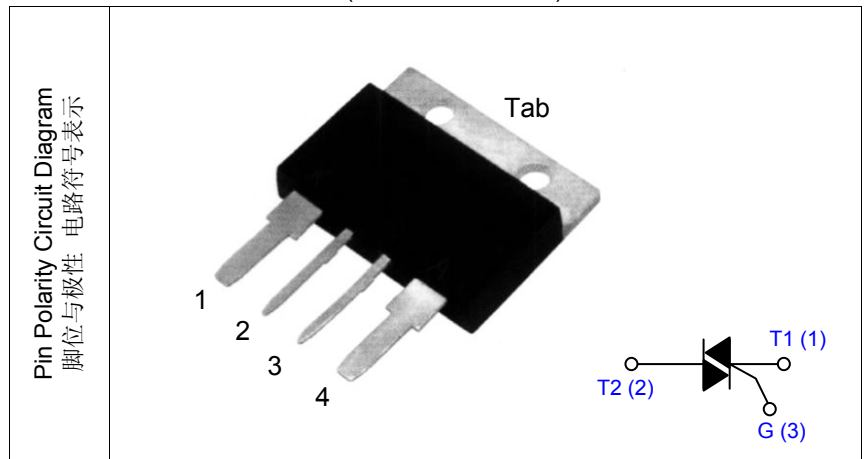
Part Number	$I_{T(RMS)}$	V_{RMD} / V_{RRM}	I_{GT}	Package	
BTA100-600B	100A	600V	$\leq 50mA$	TOP4	
BTA100-800B		800V			
BTA100-1000B		1000V			
BTA100-1200B		1200V			
BTA100-1400B		1400V			
BTA100-1600B		1600V			
BTA100-1800B*		1800V*			

* 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



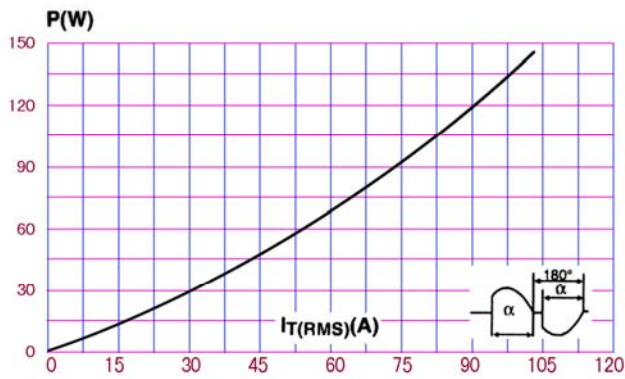
■ ABSOLUTE MAXIMUM RATINGS

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

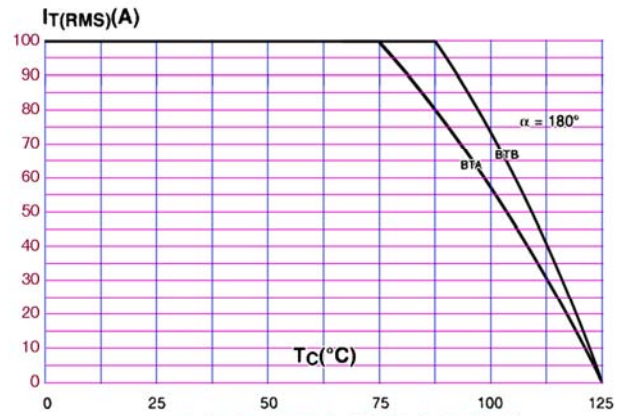
■ 绝缘电阻特征: ISOLATION LIMITING VALUE & CHARACTERISTIC ($T_{hs}=25^\circ\text{C}$ unless otherwise specified)

■ STATIC CHARACTERISTICS

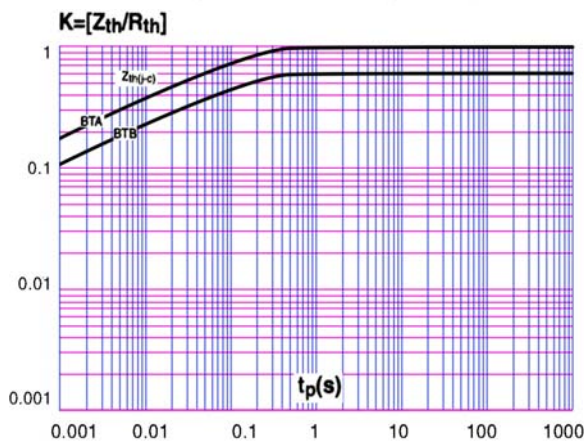
SYMBOL	Parameter & Test Conditions	Quadrant	Value			Unit 单位
			Min	Typ	Max	
I_{GT}	$V_D=12\text{V}, R_L=30\Omega$	I (T2+G+)	--	25	50	mA
		II (T2+G-)	--	25	50	
		III(T2-G-)	--	26	50	
		IV(T2-G+)	--	50	100	
I_H	$I_T=500\text{mA}$	ALL	--	--	80	
I_L	$I_G=1.2 I_{GT}$	I, II, III	--	--	60	
		IV	--	--	100	
dV/dt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



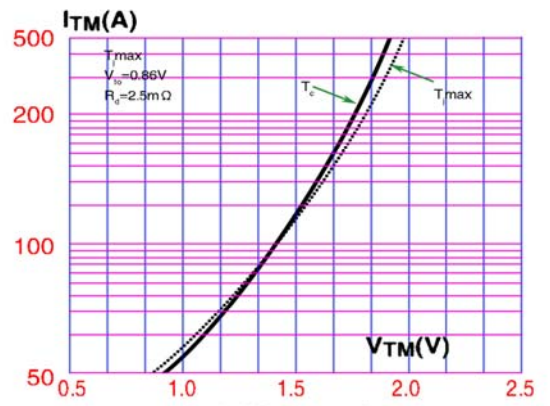
1、功耗与电流曲线 (180°C)



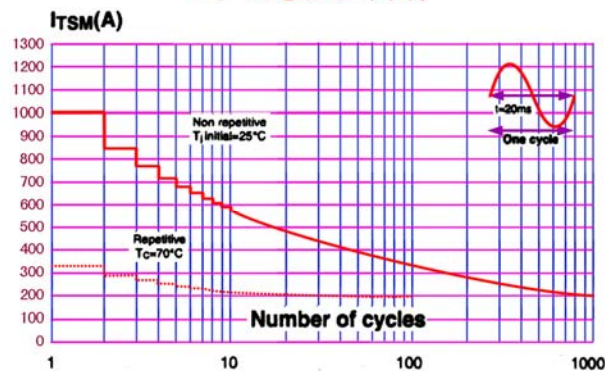
2、壳温与通态方均根电流曲线



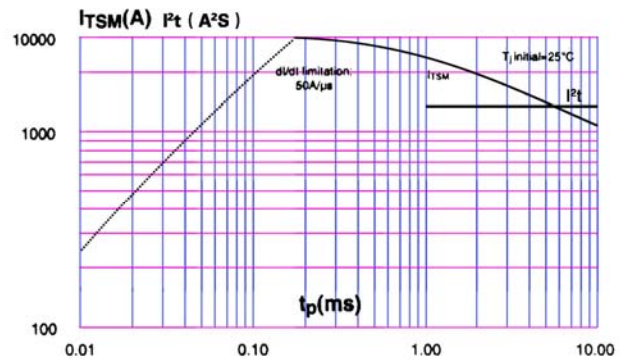
3、瞬态热阻曲线



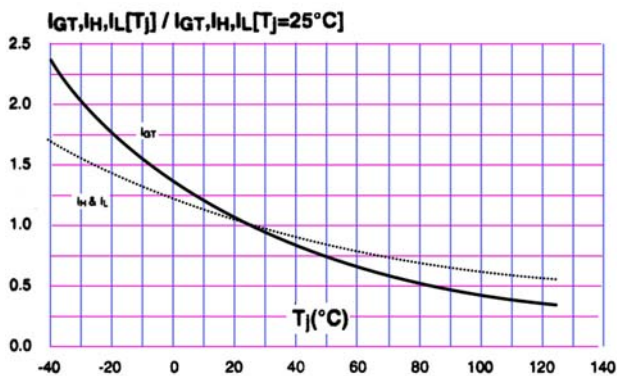
4、通态伏安特性曲线



5、浪涌电流与周波数曲线



6、 $I_{TSM}-t, I^2t-t$ 曲线

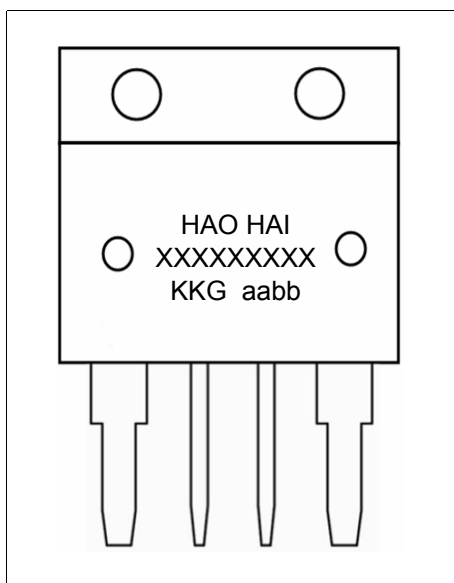


7、门极触发特性曲线

TOP4 PACKAGE MECHANICAL DATA (mm & inch)

TOP4 封装尺寸数据 (毫米与英寸对照)

	正面		Dimensions			
			Millimeters		Inches	
			Min.	Max.	Min.	Max.
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
F			6.80	8.05	0.268	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
N			1.65	2.98	0.065	0.117
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
R			1.45	1.55	0.057	0.061
Phi 1			2.78	4.01	0.109	0.158
Phi 2			3.95	5.19	0.158	0.204



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)

Marking
HAOHAI ELECTRONICS
XXXXXXXXXX: Part Number
KKG: Registered trademark
aa: Factory Year
bb: Factory natural Week
(01~53)

包装规格

TOP4
条管装、纸盒装
每管15只
每盒300只

Packaging Specifications
TOP4
Plastic tube
15Pcs/Tub
300cs/BOX

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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