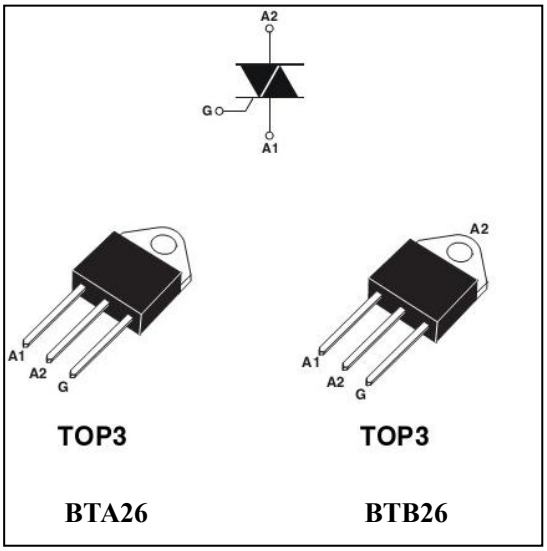
BTA26_BTB26

Triac

● FEATURES

NPNPN Silicon bidirectional devices with five-layer structure; Single-sided slotting technology with independent intellectual property rights, countertop glass passivation process; Backside multilayer metallized electrode; Has a higher Blocking voltage and high temperaturestability;



● APPLICATIONS

Vacuum cleaners, power tools and other motor speed controllers; Solid state relays; Heating controller (temperature regulation); Other phased circuits.

● ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER			RATINGS	UNIT
$I_{T(RMS)}$	Non-repetitive peak on-state current	BTA BTB	Tc=80℃ Tc=90℃	26	A
I_{TSM}	RMS on-state current	F=50HZ	t=20ms	260	A
I^2t	I^2t Limit value	tp=10ms		340	A^2S
di/dt	Critical Rate of Rise of Off-StateVoltage at Commutation		Tj=125℃	50	A/us
V_{DRM}/V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage		Tj=25℃	800/1000	V
I_{GM}	Peak Gate Current	tp=20us	Tj=125℃	4	A
$P_{G(AV)}$	Average Gate Power Dissipation		Tj=125℃	1	W
Tstg Tj	Storage Temperature Range Junction Temperature			−40to+150 −40to+125	℃

● ELECTRICAL CHARACTERISTICS (Third quadrant)

SYMBOL	PARAMETER/ TEST CONDITIONS	QUADRANT		RATINGS	UNIT
I_{GT}	Trigger current V_D=12V R_L=100Ω	I II III	MAX	≦50	mA
V_{GT}	Trigger voltage		MAX	1.5	V
V_{GD}	Gate Non-Trigger Voltage Tj=125℃		MIN	0.2	V
I_H	Holding current I_T=0.5A		MAX	60	mA
I_L	Latching Current I_G=1.2I_{GT}		MAX	60 100	mA
dv/dt	Critical Rate of Rise of Off-State Voltage V_D=2/3V_{DRM} Tj=125℃		MIN	500	V/us
(dv/dt)c	Critical Rate of Rise of Off-State Voltage at Commutation Tj=125℃		MIN	10	V/us

● ELECTRICAL CHARACTERISTICS (Fourth quadrant)

SYMBOL	PARAMETER/ TEST CONDITIONS	QUADRANT		RATINGS		UNIT
I_{GT}	Trigger current V_D=12V R_L=100Ω	I II III IV	MAX	I 、II 、III ≦50	IV ≦ 120	mA
V_{GT}	Trigger voltage		MAX	1.5		V
V_{GD}	Gate Non-Trigger Voltage Tj=125℃		MIN	0.2		V
I_H	Holding current I_T=0.5A		MAX	60		mA
I_L	Latching Current I_G=1.2I_{GT}		MAX	60 100		mA
dv/dt	Critical Rate of Rise of Off-State Voltage V_D=2/3V_{DRM} Tj=125℃		MIN	500		V/us
(dv/dt)c	Critical Rate of Rise of Off-State Voltage at Commutation Tj=125℃		MIN	10		V/us

● STATIC CHARACTERISTICS

SYMBOL	PARAMETER/ TEST CONDITIONS			RATINGS	UNIT
V_{TM}	On-statevoltage I_{TM}=52A	Tj=25℃	MAX	1.50	V
V_{T0}	Threshold Voltage	Tj=125℃	MAX	0.85	V
Rd	Dynamic Resistance	Tj=125℃	MAX	9.2	mΩ
I_{DRM} I_{RRM}	Repetitive Peak Off-State Current	Tj=25℃	MAX	10	uA
		Tj=125℃		2	mA
$R_{th(j-c)}$	Thermal resistance,junction to case	BTA		0.9	℃/W
		BTB		0.6	

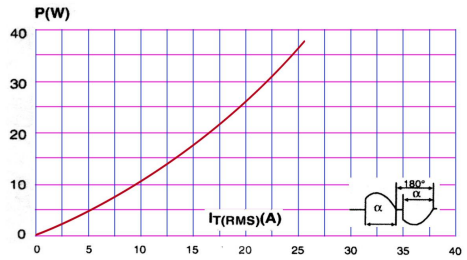


FIG.1:Maximum power dissipation versus RMS on-state curren

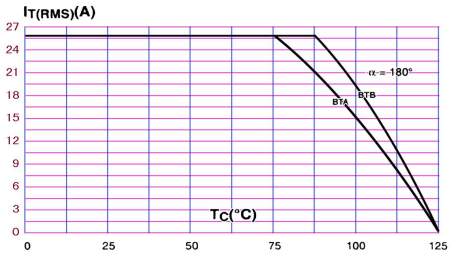


FIG.2:RMS on-state current versus case temperature

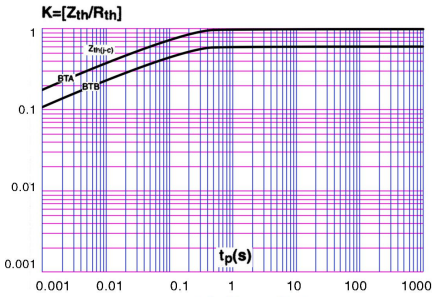


FIG.3: Relative variation of thermal impedance versus pulse duration

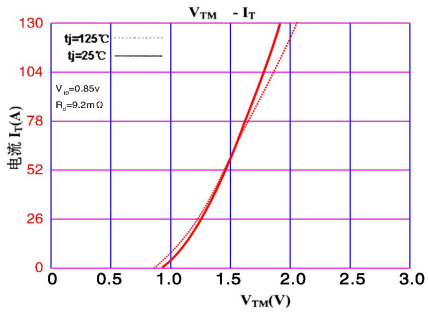


FIG.4: On-state characteristics

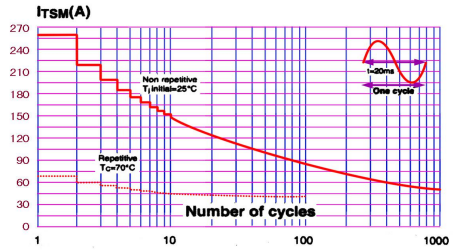


FIG.5: Surge peak on-state current versus number of cycles

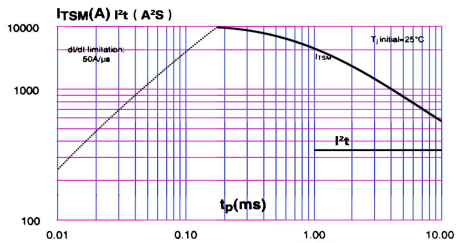


FIG.6: Non-repetitive surge peak on-state current for a sinusoidal pulse with width tp<20ms, and corresponging value of I²t (dI/dt<50A/µs)

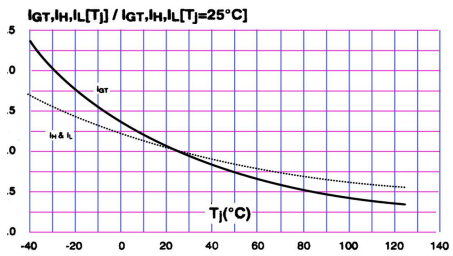
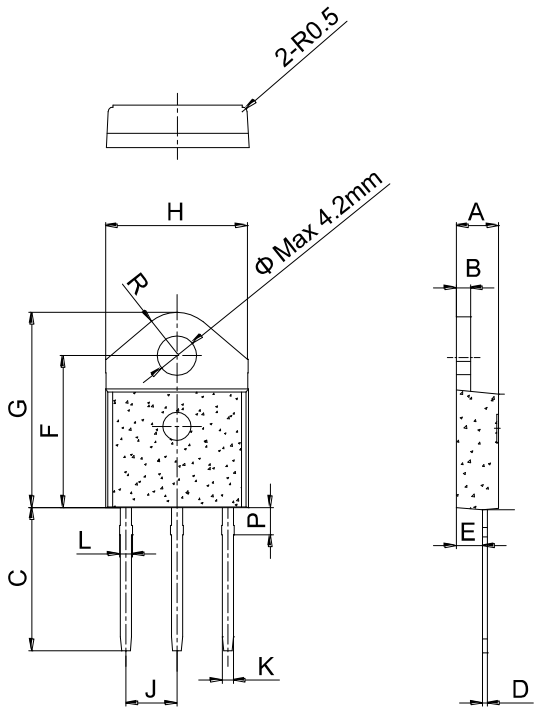


FIG.7: Relative variations of gate trigger current,holding current and latching current versus junction temperature

PACKAGE OUTLINE

TOP3



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.60	0.173		0.181
B	1.45		1.55	0.057		0.061
C	14.35		15.60	0.565		0.614
D	0.50		0.70	0.020		0.028
E	2.70		2.90	0.106		0.114
F	15.80		16.50	0.622		0.650
G	20.40		21.10	0.803		0.831
H	15.10		15.50	0.594		0.610
J	5.40		5.65	0.213		0.222
K	1.10		1.40	0.043		0.055
L	1.35		1.50	0.053		0.059
P	2.80		3.00	0.110		0.118
R		4.35			0.171	