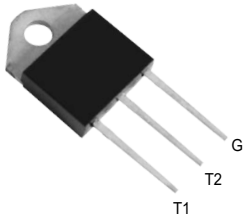
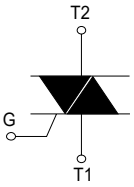
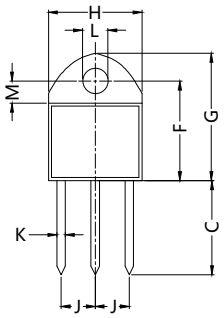
BTA26

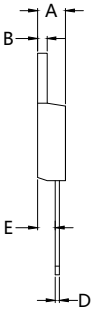
Discrete Triacs(Isolated)





Dimensions TO-218





Dim.	Millimeter	
	Min.	Max.
A	4.40	4.70
B	1.45	1.65
C	14.50	16.10
D	0.45	0.80
E	2.60	2.95
F	15.80	17.00
G	20.10	21.20
H	15.00	15.80
J	5.30	5.75
K	1.25	1.55
□L	4.00	4.25
M	3.45	3.75

Type	VRSM VDSM V	VRRM VDRM V
BTA26-400	500	400
BTA26-600	700	600
BTA26-800	900	800
BTA26-1000	1100	1000
BTA26-1200	1300	1200

RoHS Compliant

ABSOLUTE MAXIMUM RATINGS

UL 310749

Symbol	Parameter			Value	Unit
$I_{T(RMS)}$	RMS on-state current (full sine wave)	TO-218	Tc =100°C	25	A
I_{TSM}	Non repetitive surge peak on-state current (full cycle, Tj initial =25°C)	F=60Hz	t=16.7ms	250	A
		F=50Hz	t=20ms	260	
I^2t	I^2t Value for fusing	tp=10 ms		340	A^2s
dI/dt	Critical rate of rise of on-state current I_G = 2 x I_{GT} , tr ≤100 ns	F=120 Hz	T_j=125°C	50	A/µs
V_{DSM}/V_{RSM}	Non repetitive surge peak off-state voltage	tp=10ms	T_j=25°C	V_{DRM}/V_{RRM} + 100	V
I_{GM}	Peak gate current	tp=20µs	T_j=125°C	4	A
$P_{G(AV)}$	Average gate p ower diss ipation		T_j=125°C	1	W
T_{stg} T_j	Storage junction temperature range Operating junction temperature range			- 40 to + 150 - 40 to + 125	°C

ELECTRICAL CHARACTERISTICS (Tj = 25°C, unless otherwise specified)

■ **SNUBBERLESS and LOGIC LEVEL(3 Quadrants)**

Symbol	Test Conditions	Quadrant		BTA26		Unit
				CW	BW	
I_{GT}	V_D=12 V R_L=33 Ω	I - II - III	MAX.	35	50	mA
V_{GT}		I - II - III	MAX.	1.3		V
V_{GD}	V_D=V_{DRM} R_L=3.3 kΩ T_j=125°C	I - II - III	MIN.	0.2		V
I_H	I_T = 500mA		MAX.	50	75	mA
I_L	I_G=1.2I_{GT}	I - III	MAX.	70	80	mA
		II		80	100	
dV/dt	V_D = 67 % V_{DRM} gate open T_j=125°C		MIN.	500	1000	V/µs
(dI/dt)c	Without snubber T_j=125°C		MIN.	13	22	A/ms

V_{ISO}>2500VAC 1min

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BTA26

Discrete Triacs(Isolated)

■ STANDARD (4 Quadrants)

Symbol	Test Conditions	Quadrant		Value	Unit
I_{GT}	VD=12 V RL=33 Ω	I - II - III IV	MAX.	50 100	mA
V_{GT}		ALL	MAX.	1.3	V
V_{GD}	VD=VDRM RL=3.3 Ω T_j=125°C	ALL	MIN.	0.2	V
I_H	I_T=500mA		MAX.	80	mA
I_L	I_G=1.2 I_{GT}	I - III - IV	MAX.	70	mA
		II		160	
dV/dt	V_D= 67% V_{DRM} gate open T_j=125°C		MIN.	500	V/μs
(dV/dt)c	(dI/dt)c=13.3 A/ms T_j=125°C		MIN.	10	V/μs

STATIC CHARACTERISTICS

Symbol	Test Conditions			Value	Unit
V_{TM}	I_{TM}=25A tp=380μs	T_j = 25°C	MAX.	1.55	V
V_{to}	Threshold voltage	T_j = 125°C	MAX.	0.85	V
R_d	Dynamic resistance	T_j = 125°C	MAX.	16	mΩ
I_{DRM}	V_{DRM} = V_{RRM}	T_j = 25°C	MAX.	5	μA
I_{RRM}		T_j = 125°C		3	mA

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	Junction to case (AC)	0.8	°C/W
$R_{th(j-a)}$	Junction to ambient	60	°C/W

PRODUCT SELECTOR

Part Number	Voltage (xxx)		Sensitivity	Type	Package
	200 V ~~ 1200 V				
BTA26	X	X	50 mA	Standard	TO-218

OTHER INFORMATION

Part Number	Marking	Weight	Base quantity	Packing mode
BTA26	BTA26	4.6g	30	Tube

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BTA26

Discrete Triacs(Isolated)

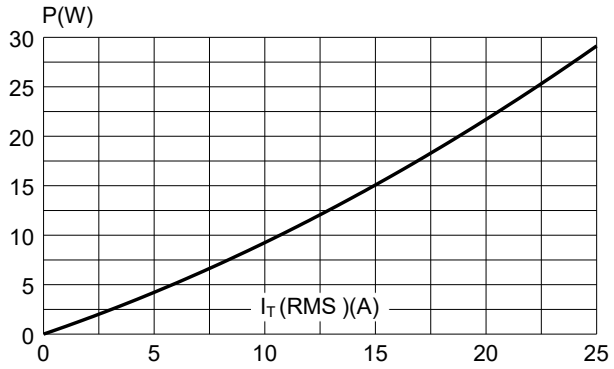

Fig.1:Maximum power dissipation versus RMS on-state current (full cycle).

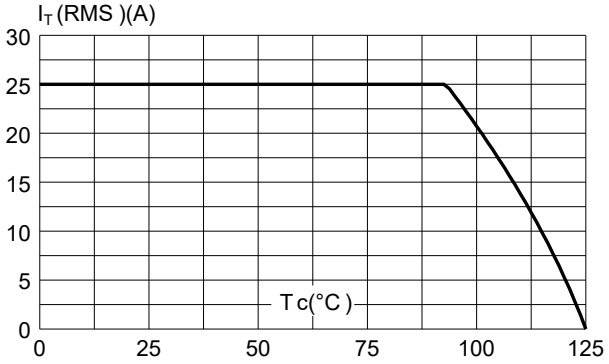

Fig.2:RMS on-state current versus case temperature (full cycle).

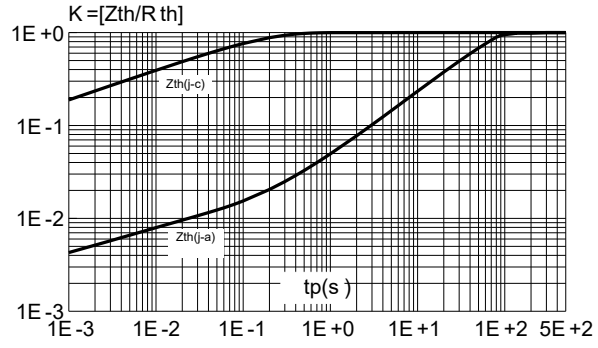

Fig.3:Relative variation of thermal impedance versus pulse duration.

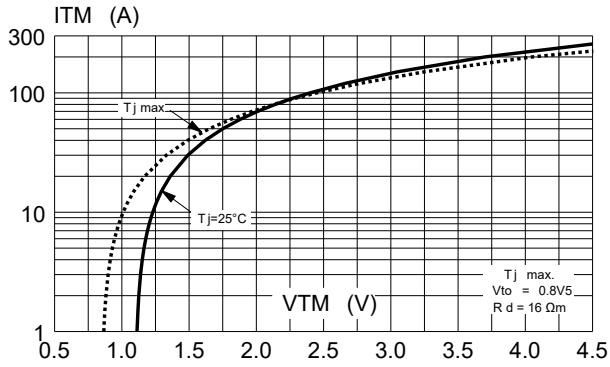

Fig.4:On-state characteristics (maximum values).

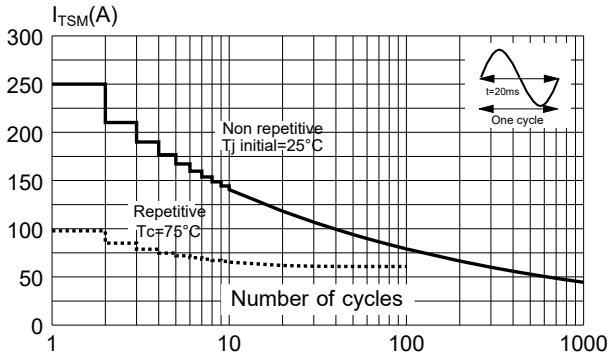

Fig.5:Surgepeak on-state current versus number of cycles.

for a sinusoidal pulse with width tp<10ms, and corresponding value of I²t.

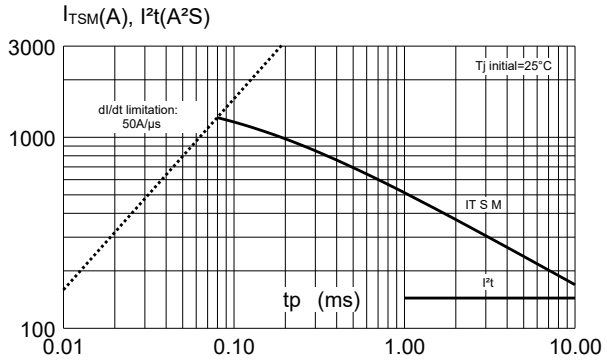

Fig.6:Non-repetitive surge peak on-state current

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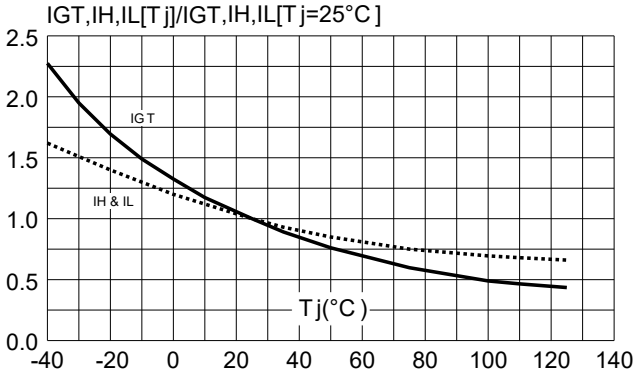

Fig.7:Relative variation of gate trigger current, holding current and latching current versus junction temperature (typical values).

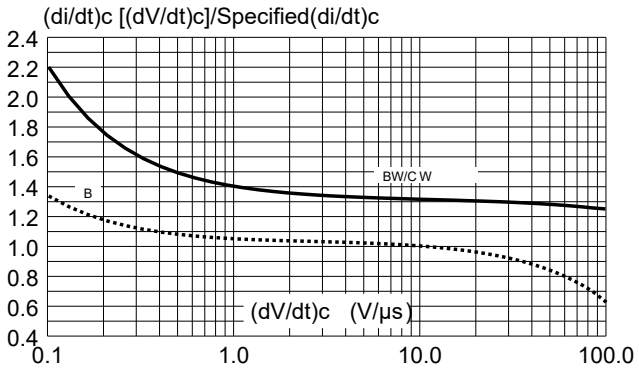

Fig.8:Relative variation of critical rate of decrease of main current versus(dV/dt)c (typical values).

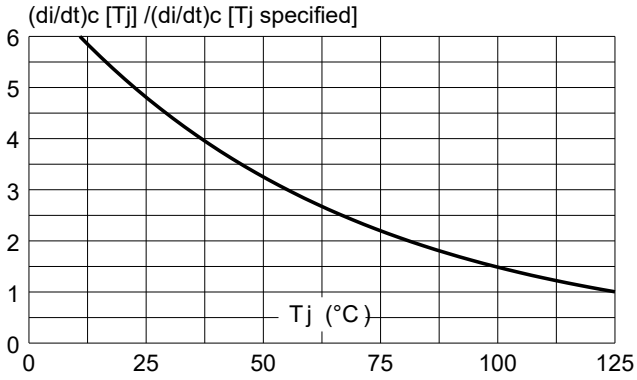

Fig.9:Relative variation of critical rate of decrease of main current versus junction temperature.

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