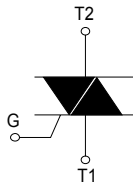
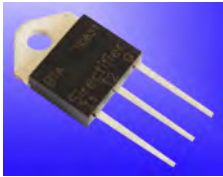
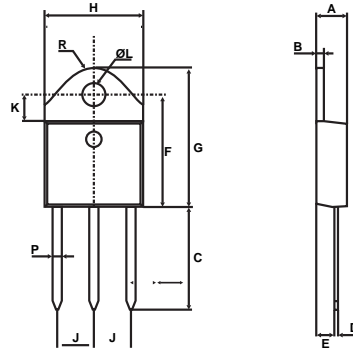


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Discrete Triacs(Isolated)



Dimensions TO-218



REF.	DIMENSIONS					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.4		4.6	0.173		0.181
B	1.45		1.55	0.057		0.061
C	14.35		15.60	0.565		0.614
D	0.5		0.7	0.020		0.028
E	2.7		2.9	0.106		0.114
F	15.8		16.5	0.622		0.650
G	20.4		21.1	0.815		0.831
H	15.1		15.5	0.594		0.610
J	5.4		5.65	0.213		0.222
K	3.4		3.65	0.134		0.144
ØL	4.08		4.17	0.161		0.164
P	1.20		1.40	0.047		0.055
R		4.60			0.181	

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

ABSOLUTE MAXIMUM RATINGS

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

ELECTRICAL CHARACTERISTICS ($T_j = 25^\circ\text{C}$, unless otherwise specified)

■ SNUBBERLESS and LOGIC LEVEL(3 Quadrants)

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

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■ STANDARD (4 Quadrants)

Symbol	Test Conditions	Quadrant		Value	Unit
I_{GT}	$V_D = 12\text{ V}$ $R_L = 33\ \Omega$	I - II - III IV	MAX.	50 100	mA
V_{GT}		ALL	MAX.	1.3	V
V_{GD}	$V_D = V_{DRM}$ $R_L = 3.3\ \Omega$ $T_j = 125^\circ\text{C}$	ALL	MIN.	0.2	V
I_H	$I_T = 500\text{ mA}$		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 $T_j = 125^\circ\text{C}$		MIN.	500	V/ μs
(dV/dt)c	(dI/dt)c = 13.3 A/ms $T_j = 125^\circ\text{C}$		MIN.	10	V/ μs

STATIC CHARACTERISTICS

Symbol	Test Conditions		Value	Unit	
V_{TM}	$I_{TM} = 25\text{ A}$ $t_p = 380\ \mu\text{s}$	$T_j = 25^\circ\text{C}$	MAX.	1.55	V
V_{to}	Threshold voltage	$T_j = 125^\circ\text{C}$	MAX.	0.85	V
R_d	Dynamic resistance	$T_j = 125^\circ\text{C}$	MAX.	16	m Ω
I_{DRM}	$V_{DRM} = V_{RRM}$	$T_j = 25^\circ\text{C}$	MAX.	5	μA
I_{RRM}		$T_j = 125^\circ\text{C}$		3	mA

THERMAL RESISTANCES

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

PRODUCT SELECTOR

Part Number	Voltage (xxx)		Sensitivity	Type	Package
	200 V	~ 1800 V			
BTA26	X	X	50 mA	Standard	TO-218

OTHER INFORMATION

Part Number	Marking	Weight	Base quantity	Packing mode
BTA26	BTA26	4.6g	250	Bulk

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Discrete Triacs(Isolated)

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

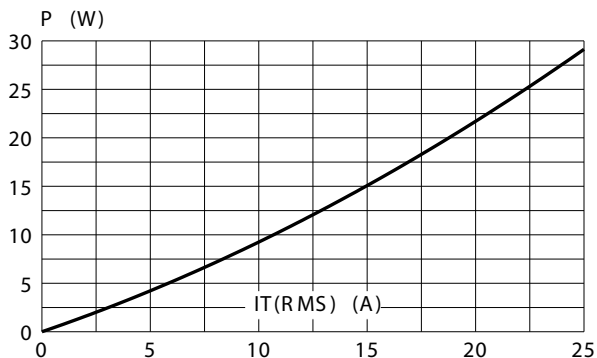


Fig. 2 : RMS on-state current versus case temperature (full cycle).

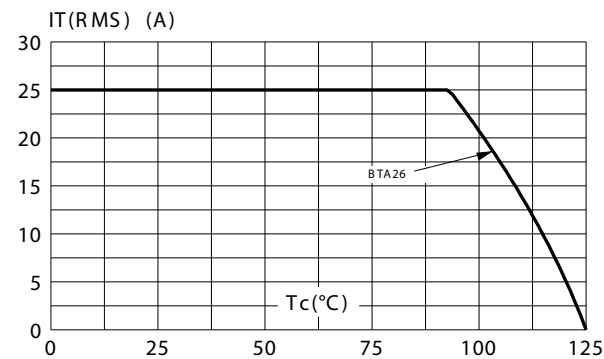


Fig.3: Relative variation of thermal impedance versus pulse duration.

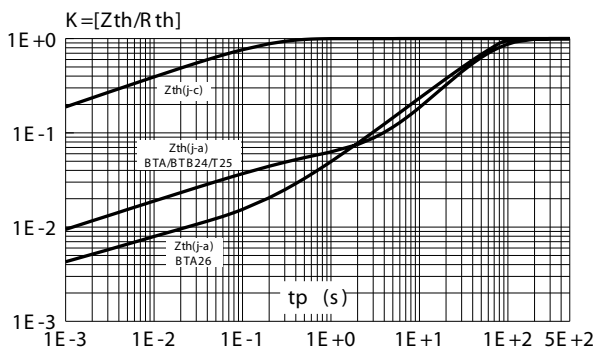


Fig. 4 : On-state characteristics (maximum values).

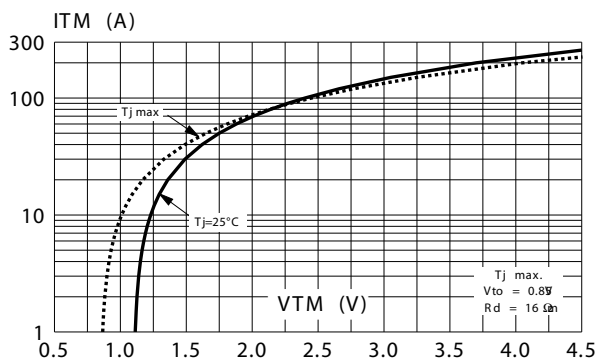


Fig. 5 Surge peak on-state current versus number of cycles.

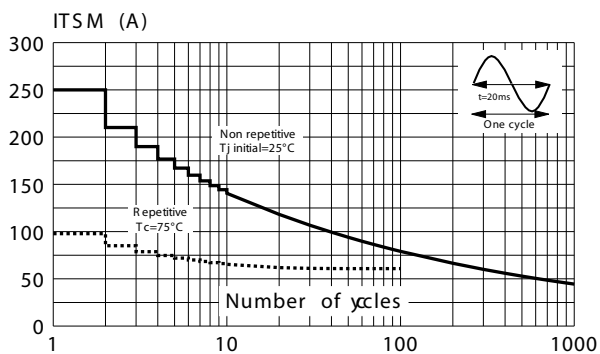
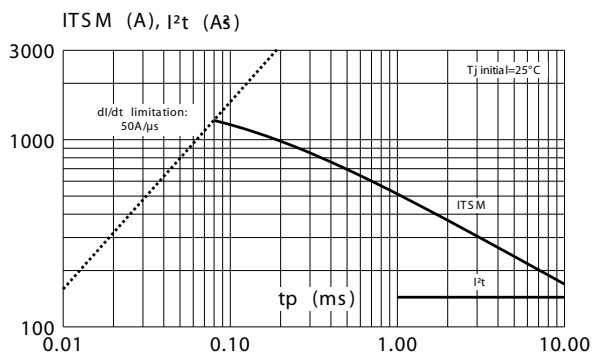


Fig. 6 Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 10ms$, and corresponding value of I^2t .



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

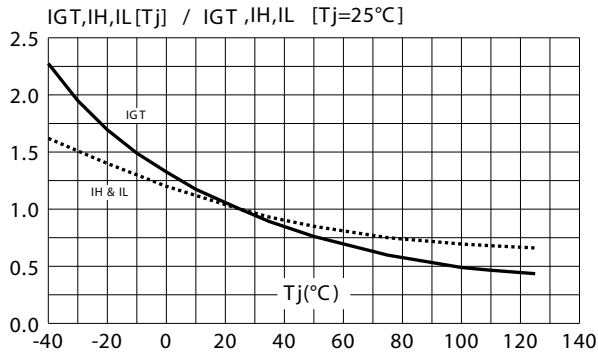


Fig.8: Relative variation of critical rate of decrease of main current versus $(dV/dt)_c$ (typical values).

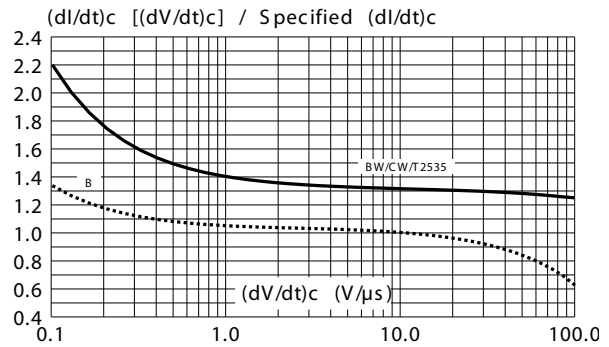


Fig.9: Relative variation of critical rate of decrease of main current versus junction temperature.

