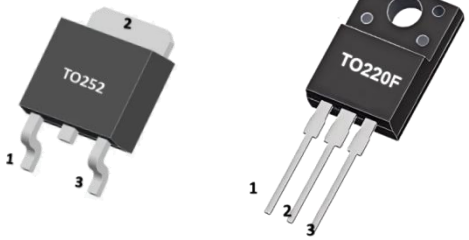
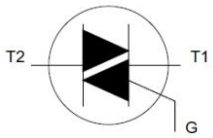
GENERAL DESCRIPTION

Passivated, sensitive gate triacs in a plastic envelope, suitable for surface mounting, intended for use in general purpose bidirectional switching and phase control applications, where high sensitivity is required in all four quadrants.





Pin1:T1
Pin2:T2
Pin3:G

MARKING

WPM: LOGO
BT136=Device Code
800E:V_{DRM}/V_{RRM}=800V

ABSOLUTE MAXIMUM RATINGS (T_C=25°C, unless otherwise specified)

SYMBOL	PARAMETER		TEST CONDITION	VALUE	UNIT
V_{DRM}	Repetitive Peak off-state voltage	BT136-600E	(Tj=25℃)	600	V
		BT136-800E		800	
$I_{T(RMS)}$	RMS forword current			4	A
I_{TSM}	Non-repetitive peak on-state current		t=20ms	25	A
			t=16.7ms	27	
I^2t	I^2t for fusing		t=10ms	3.1	A^2S
V_{GM}	Peak gate voltage			5	V
I_{GM}	Peak gate current			2	A
P_{GM}	Peak gate Power			5	W
$P_{G(AV)}$	Average gate Power			0.5	W
Tj	Junction Temperature			125	℃
Tstg	Storage Temperature Range			-40 to +150	℃

Notes: 1.Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.
2.Although not recommended, off-state voltages up to 800V may be applied without damage, but the traic may switch to the on-state. The rate of rise of current should not exceed 3A/μs.

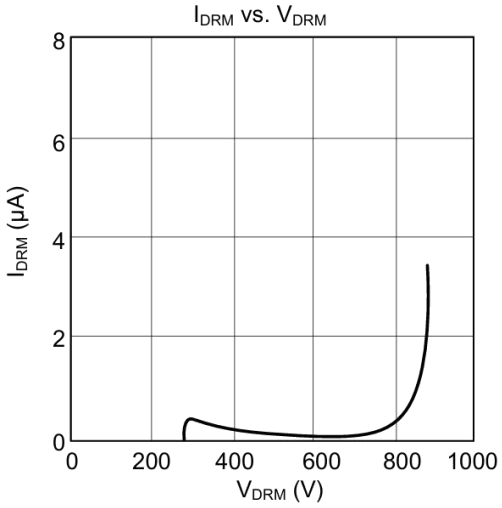
THERMAL DATA

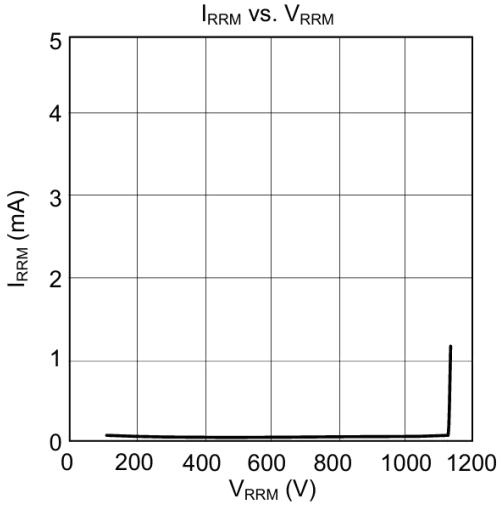
PARAMETER			SYMBOL	RATINGS	UNIT
Junction to Ambient	Pcb Mounted	TO-220F	θJA	60	K/W
		TO-252		75	K/W
Junction to Mounting Base	Full Cycle		θJB	3.0	K/W
	Half Cycle			3.7	K/W

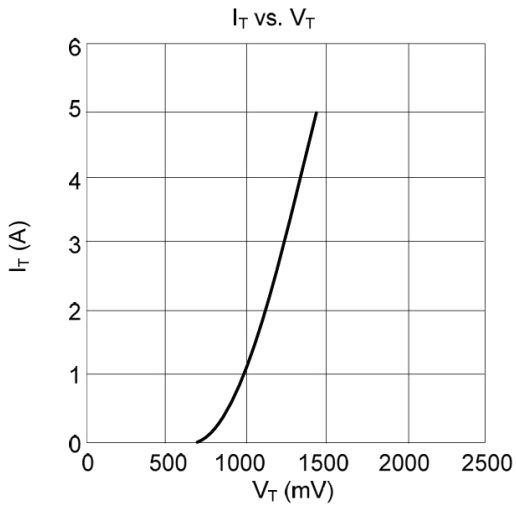
ELECTRICAL CHARACTERISTICS (T_J=25°C, unless otherwise specified)

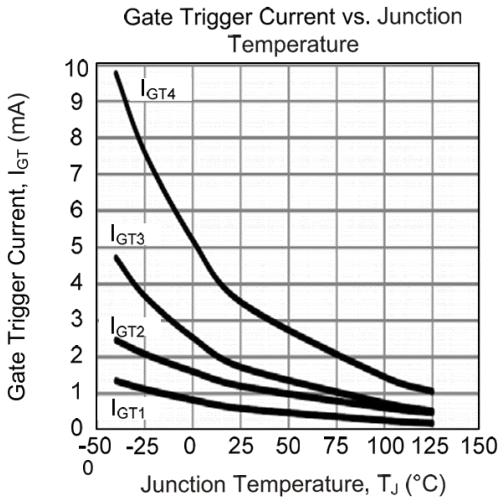
PARAMETER	SYMBOL	TEST CONDITIONS		MIN	TYP	MAX	UNIT
STATIC							
Gate trigger current	IGT	VD=12V; I_T=0.1A	T2+, G+		2.5	10	mA
			T2+, G -		4	10	
			T2-, G -		5	10	
			T2-, G+		11	25	
Gate trigger voltage	IL	VD=12V; I_{GT}=0.1A	T2+, G+		3	15	mA
			T2+, G -		10	20	
			T2-, G -		2.5	15	
			T2-, G+		4	20	
Holding current	IH	V_D=12V,I_{GT}=0.1A			2.2	15	mA
On-State Voltage	VT	I_T=5A			1.4	1.7	V
Gate Trigger Voltage	VGT	V_D=12V,I_T=0.1A			0.7	1.5	V
		V_D=400V,I_T=0.1A;T_j=125℃		0.25	0.4		
Off-state Leakage Current	ID	VD=VDRM(max) ,Tj=125℃			0.1	0.5	mA
DYNAMIC							
Critical Rate of Rise of off-state Voltage	dV_D/dt	V_{DM}=67%$V_{DRM(max)}$,T_j=125° Gate open circuit			50		V/μs
Gate Controlled Turn-on Time	t_{gt}	ITM=6A,VD=VDRM(max) IG=0.1A dIg/dt=5A/μs			2		μs

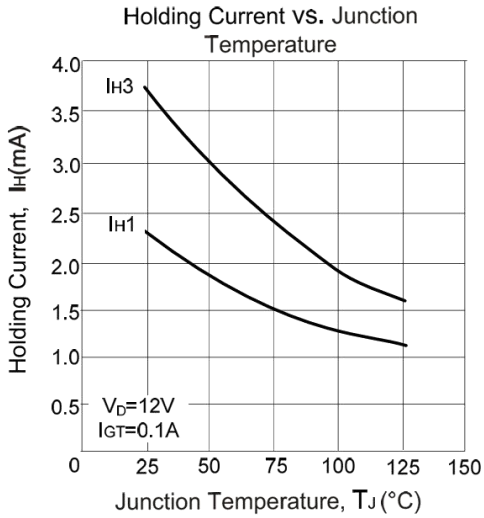
TYPICAL CHARACTERISTICS (1)

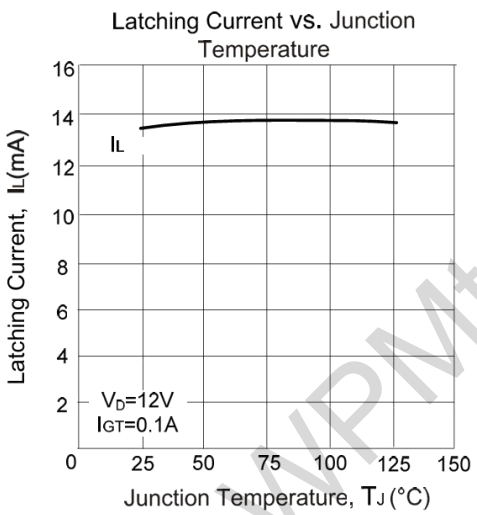




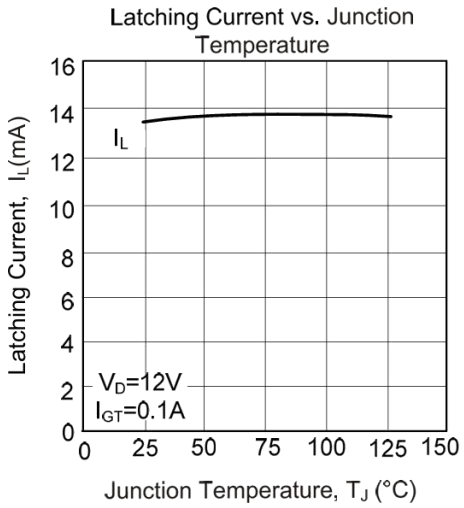


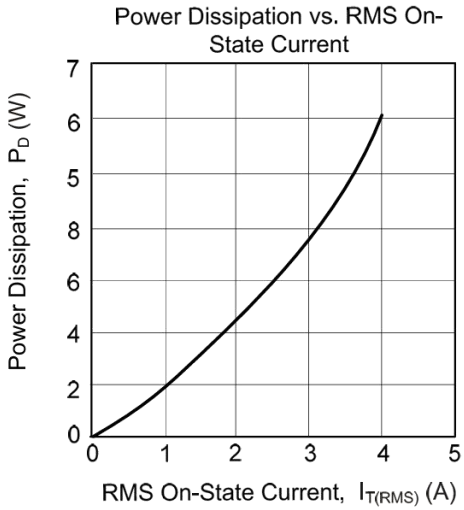


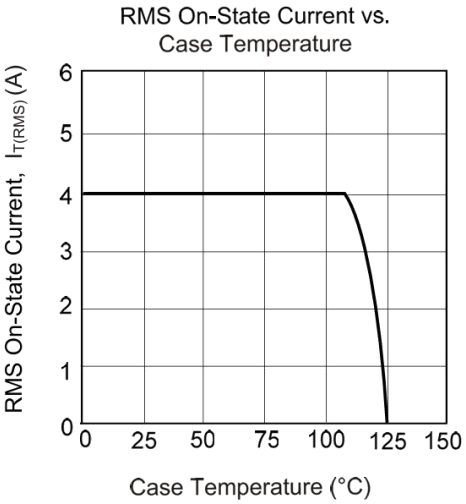


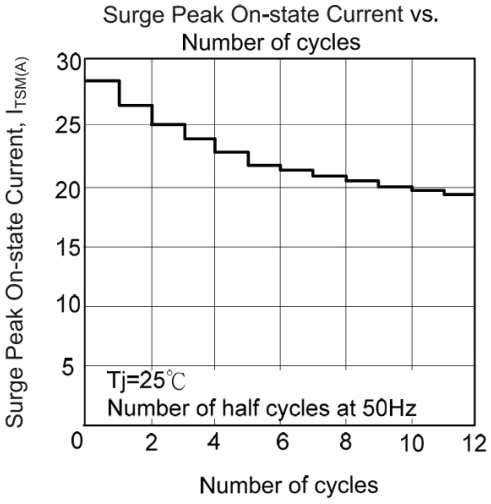


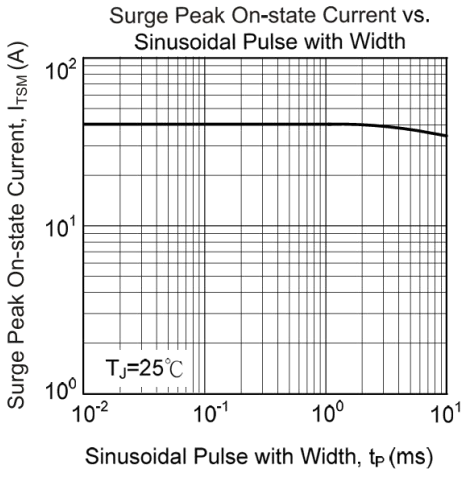
TYPICAL CHARACTERISTICS (Con.t)



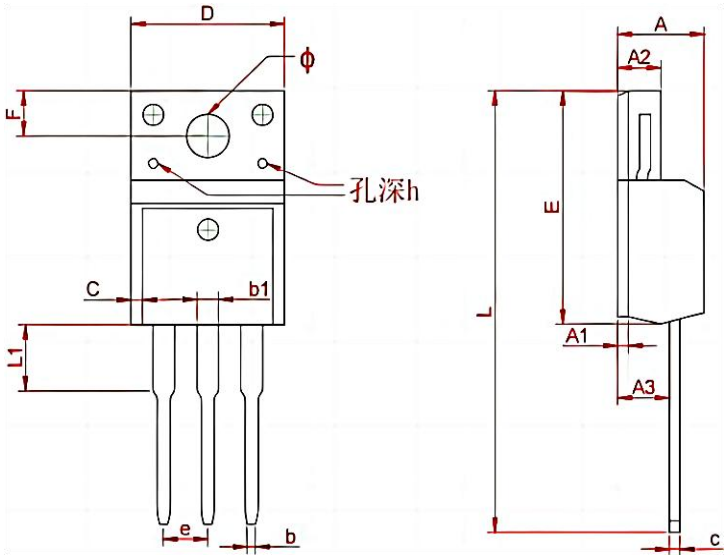








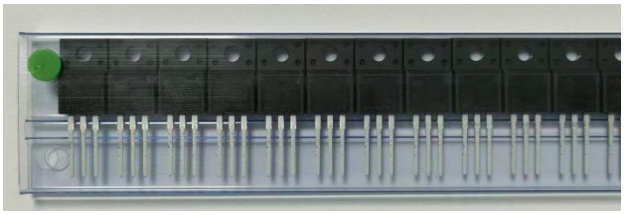
TO - 220F PACKAGE OUTLINE DIMENSIONS



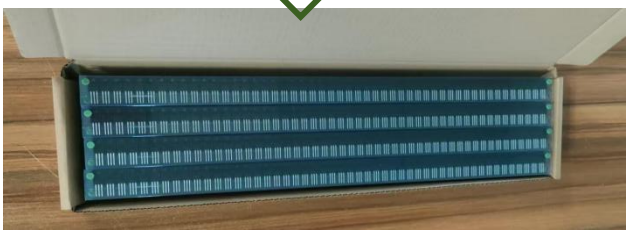
Symbol	Dimensions In Millimeters	
	Min	Max
A	4.3	4.75
A1	0.7 REF	
A2	2.3	2.85
A3	2.5	2.9
b	0.38	0.42
b1	1.22	1.28
C	1.08	1.2
c	0.48	0.52
D	10.15	10.45
E	15.7	15.95
e	2.574 TYP	
F	3.470 REF	
h	0	0.8
L	28.78	28.9
L1	2.99	3.1

TO - 220F PACKING INFORMATION

50PCS



20 Tube



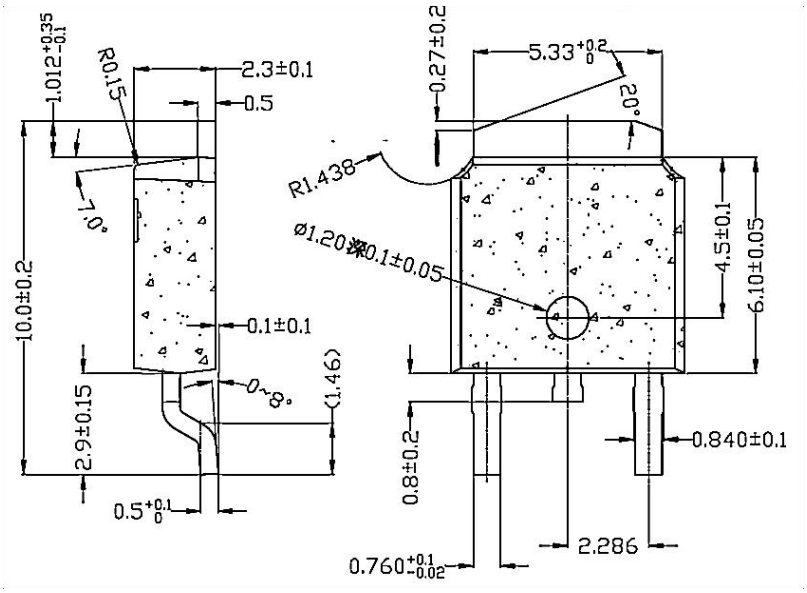
5 Inner Box

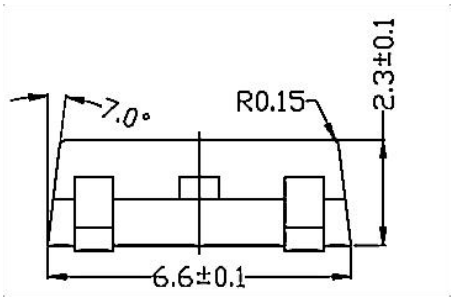
Outer Box

Inner Box

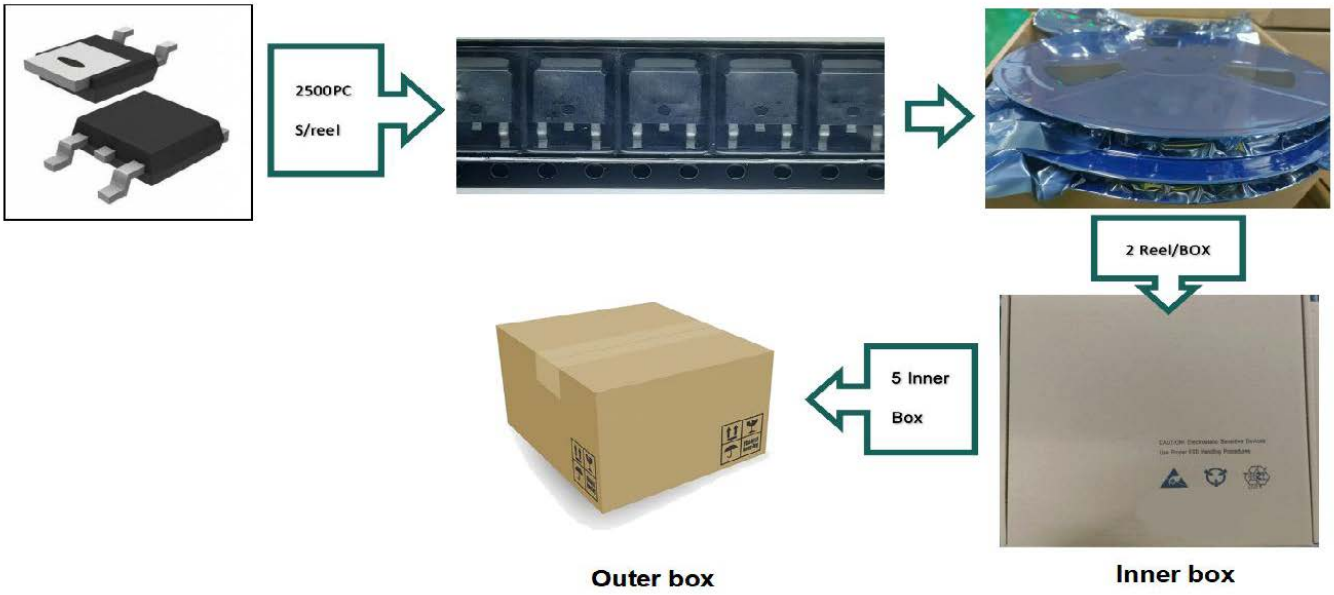
Package version	Tube dimensions LxW×H (mm)	Per Tube (pcs)	Tube per box	Inner box dimensions LxW×H (mm)	PCS/ Inner box	Outer box dimensions L×W×H(mm)	PCS/ Outer box
TO-220F	530*32*7	50	20	580*155*50	1000	602*277*188	5000

TO - 252 PACKAGE OUTLINE DIMENSIONS





TO - 252 PACKING INFORMATION



Package version	Reel dimensions Φ×H (mm)	Per Reel (pcs)	Reels per box	Inner box dimensions L×W×H(mm)	Outer box (pcs)	Outer box dimensions L×W×H (mm)
TO-252	Φ330*20	2500	2	360*340*50	25000	375*375*280