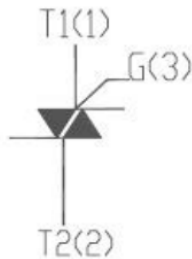




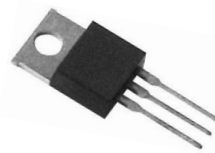
Features

- High current triac
- Low thermal resistance with clip bonding
- High commutation (4 quadrant) or very high commutation (3 quadrant) capability

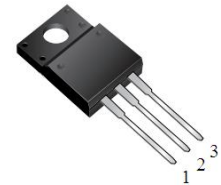


VOLTAGE RANGE 600/800 Volts

CURRENT 4 Ampere



TO-220AB



ITO-220AB



TO-252

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Symbol	Parameter	Conditions	Ratings	Unit
V _{DRM} V _{RDM}	Repetitive Peak Off-State Voltage	BT136-600	600	V
		BT136-800	800	
I _{T(RMS)}	R.M.S On-State Current	T _c =110°C	4	A
I _{TSM}	Surge On-State Current	tp=16.7ms/tp=10ms	25/27	A
I ² t	I ² t for fusing	Tp=10ms	3.1	A ² s
P _{G(AV)}	Average Gate Power Dissipation	T _j =125°C	1	W
I _{GM}	Peak Gate Current	tp=20us T _j =125°C	2	A
T _j	Operating Junction Temperature		~40~125	°C
T _{STG}	Storage Temperature		~40~150	°C

BT136

Electrical Characteristics (T_J=25°C unless otherwise specified)

Symbol	Parameter	Test Conditions	Value				Unit	
			D	E	F	G		
IDRM	Repetitive Peak Off-State Current	T _J =25°C	≤10				uA	
		T _J =125°C	≤0.5				mA	
IRRM	Repetitive Peak Reverse Current	T _J =25°C	≤10				uA	
		T _J =125°C	≤0.5				mA	
VTM	Forward "on" voltage	I _T =5A t _p =380us	≤1.7				V	
VGD	gate non-trigger voltage	V _D =12V, T _J =125°C	≥0.2				V	
IH	Holding current	I _T =100mA	≤10	≤25	≤30	≤60	mA	
VGT	Gate trigger voltage	V _D =12V	≤1.5				V	
IGT	Gate trigger current	V _D =12V, I _{GT} =0.1A	I,II,III	5	10	25	50	mA
			IV	10	25	70	100	mA
di/dt	Critical-rate of rise of commutation current.	I _T =6A, I _{GT} =0.2A, dI _G /dt=0.2A/us	≥50				A /us	
			≥10				A /us	
dv/dt	Critical-rate of rise of commutation voltage	T _J =125°C V _D =2/3V _{DRM} Gate	5	10	50	200	V/us	

RATING AND CHARACTERISTIC CURVES (BT136)

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

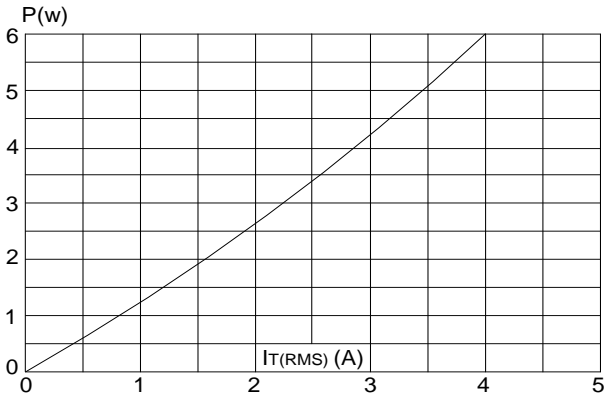


FIG.3: Surge peak on-state current versus number of cycles

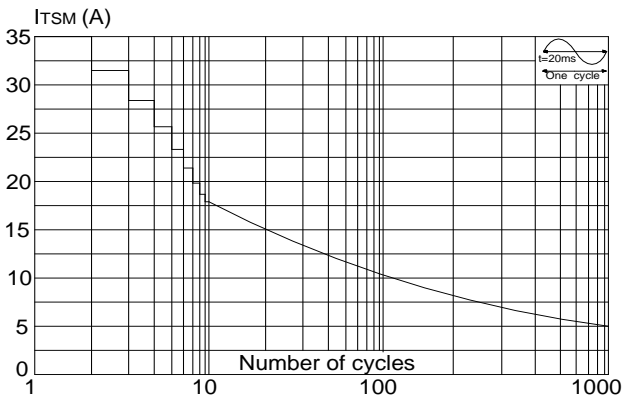


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 20\text{ms}$, and corresponding value of $I t$ ($di/dt^2 < 100\text{A}/\mu\text{s}$)

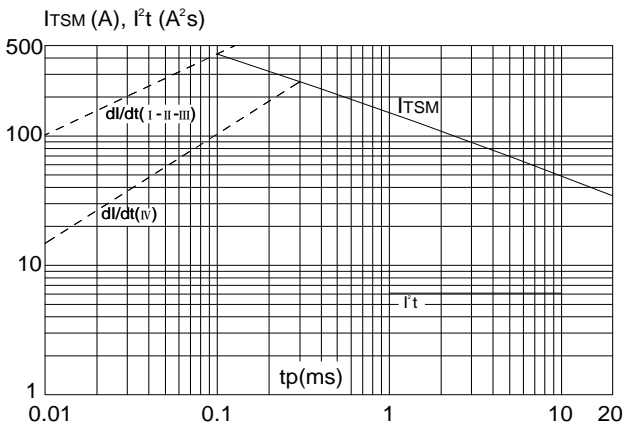


FIG.2: RMS on-state current versus case temperature

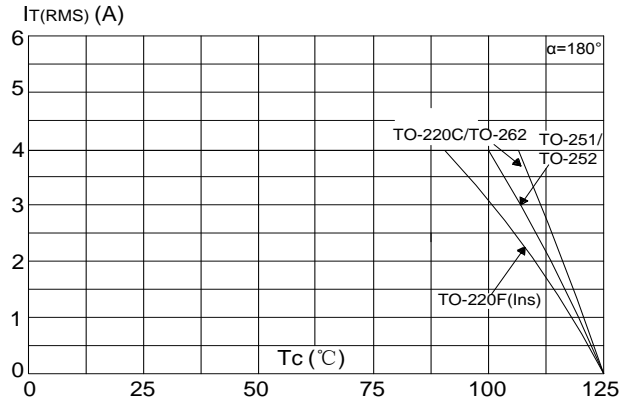


FIG.4: On-state characteristics (maximum values)

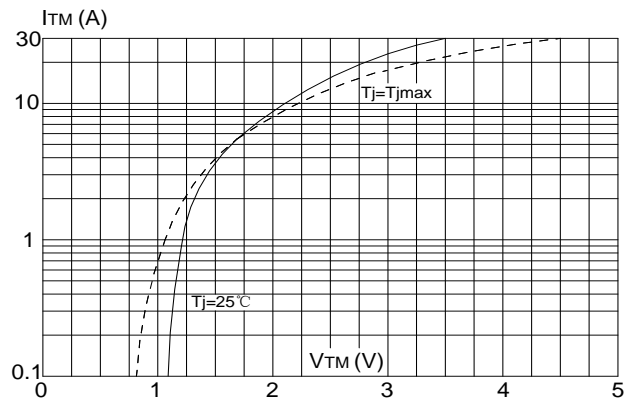
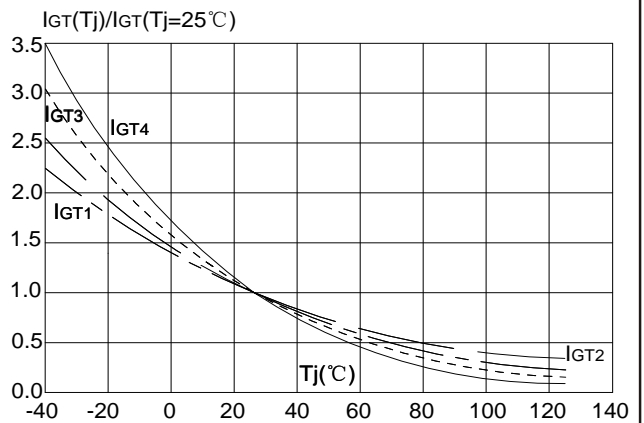


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature



RATING AND CHARACTERISTIC CURVES (BT136)

FIG.7: Relative variations of holding current versus junction temperature

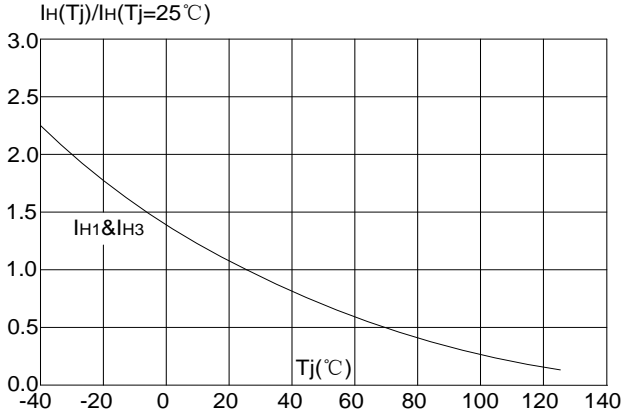
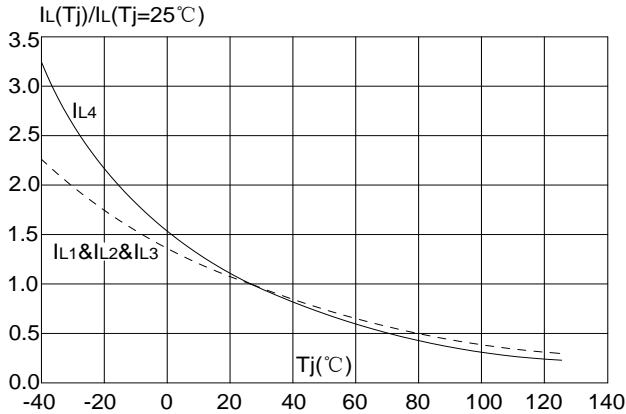
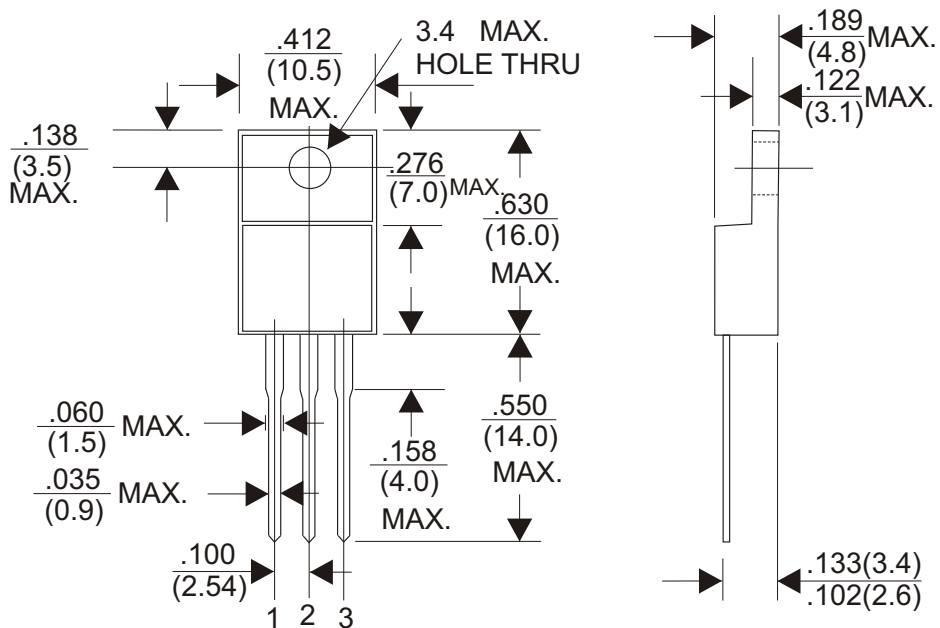


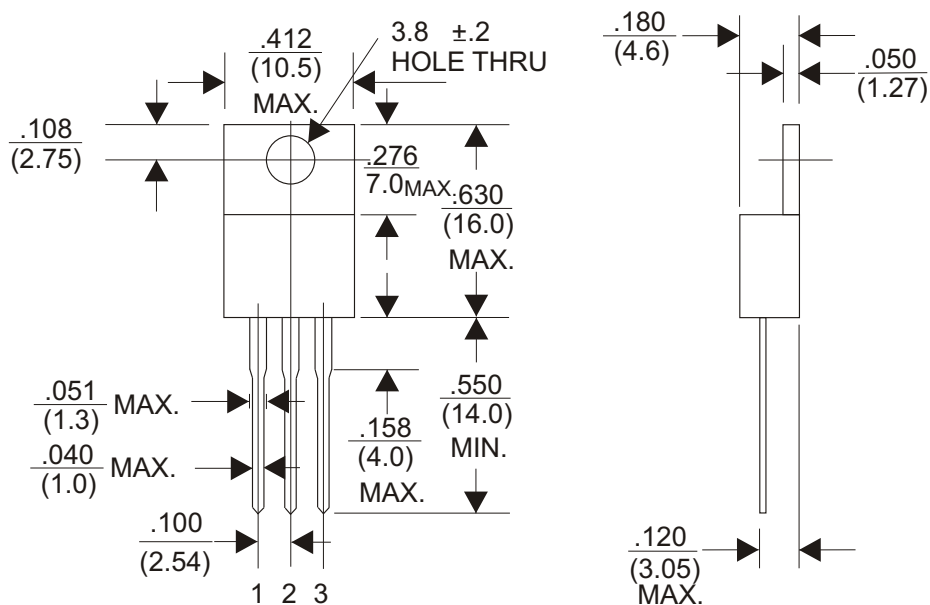
FIG.8: Relative variations of latching current versus junction temperature



ITO-220AB

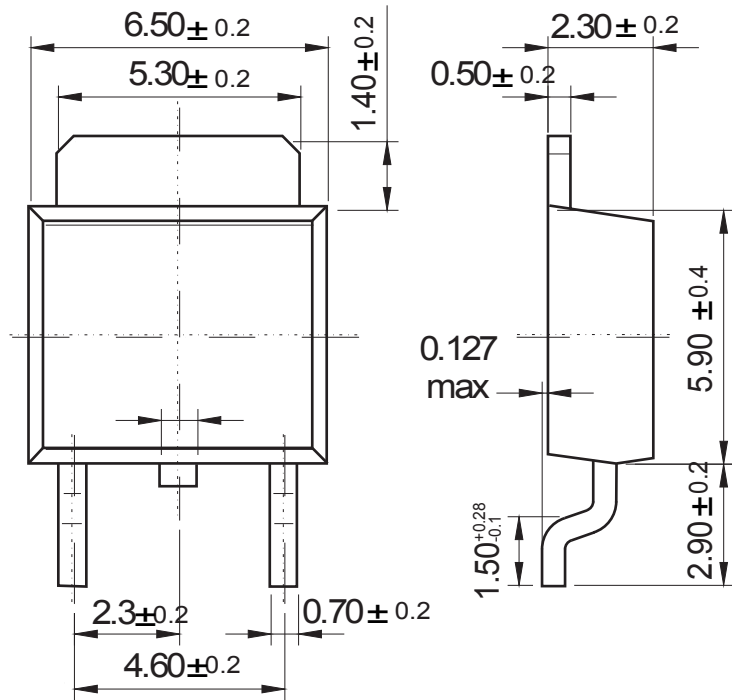


TO-220AB



TO-252

Unit: mm



Dimensions in inches and (millimeters)