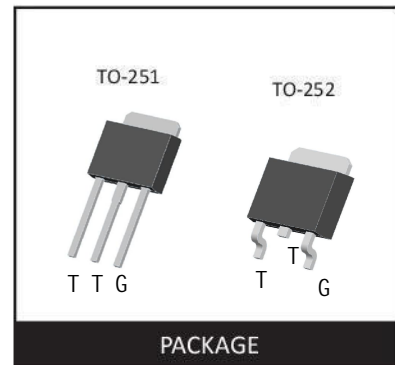
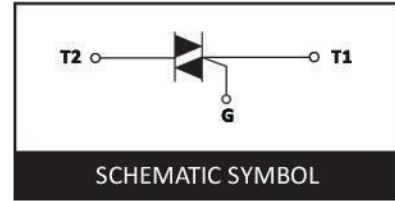




BT136 TRIAC

FEATURES

Glass passivated triacs in a plastic, intended for use in applications requiring high bidirectional transient and blocking voltage capability and high thermal cycling performance. Typical applications include motor control, industrial and domestic lighting, heating and static switching.



MAXIMUM RATINGS(T_a=25°C unless otherwise noted)

Symbol	Parameter	Test conditions	Value	Unit
V _{DRM} /V _{RRM}	Repetitive peak off-state/reverse voltages		600	V
I _{T(RMS)}	RMS on-state current Non-repetitive peak on-state current	full sine wave ;T _{mb} ≤107°C	4	A
I ² _t	I ² _t for fusing	t=10ms	3.1	A ² s
di _r /dt	Repetitive rate of rise of on-state current after tiggering	di _a /dt=0.2A/us		
		T2+G+	50	A/us
		T2+G-	50	A/us
		T2-G-	50	A/us
		T2-G+	10	A/us
I _{GM}	Peak gate current		2	A
V _{GM}	Peak gate voltage		5	V
P _{GM}	Peak gate power		5	W
P _{G(AV)}	Average gate power	over any 20 ms period	0.5	W
T _{stg}	Storage Temperature		-40~150	°C
T _j	Operating junction Temperature		125	°C

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Rated repetitive peak off-state current	I_{DRM}	$V_D=V_{DRM}$			10	μA
On-state voltage	V_{TM}	$I_T=3\text{A}$		1.4	1.7	V
Gate trigger current	I_{GT}	$T_2(+), G(+)$	$V_D=12\text{V}$ $R_L=100\Omega$		7	mA
		$T_2(+), G(-)$			7	mA
		$T_2(-), G(-)$			7	mA
		$T_2(-), G(+)$			10	mA
Gate trigger voltage	V_{GT}	$T_2(+), G(+)$	$V_D=12\text{V}$ $R_L=100\Omega$		1.45	V
		$T_2(+), G(-)$			1.45	V
		$T_2(-), G(-)$			1.45	V
		$T_2(-), G(+)$			2	V
Holding current	I_H	$I_T=100\text{mA}$ $I_G=20\text{mA}$			15	mA
Thermal Resistance Junction to mounting base	R_{thj-mb}	full cycle			3.0	K/W
		half cycle			3.7	K/W
Thermal Resistance Junction to ambient	R_{thj-a}	In free air		60		K/W

Typical Characteristics

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

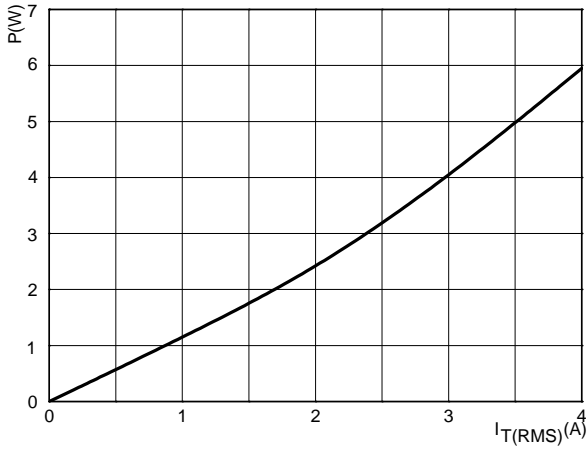


FIG.2: RMS on-state current versus case temperature (full cycle)

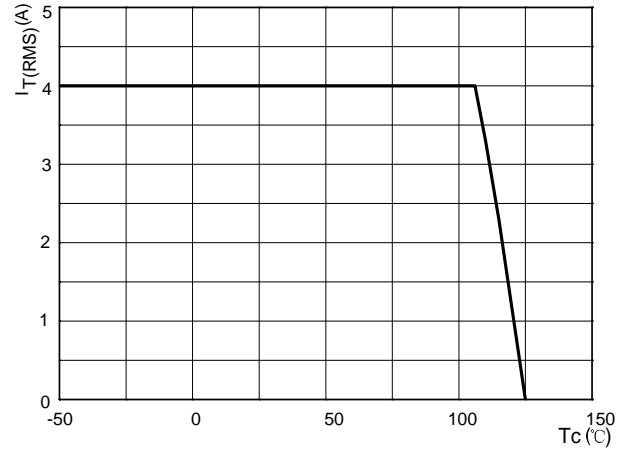


FIG.3: Surge peak on-state current versus number of cycles

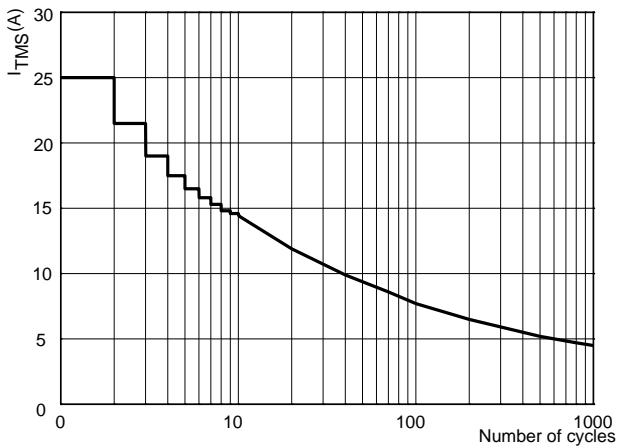


FIG.4: On-state characteristics (maximum values)

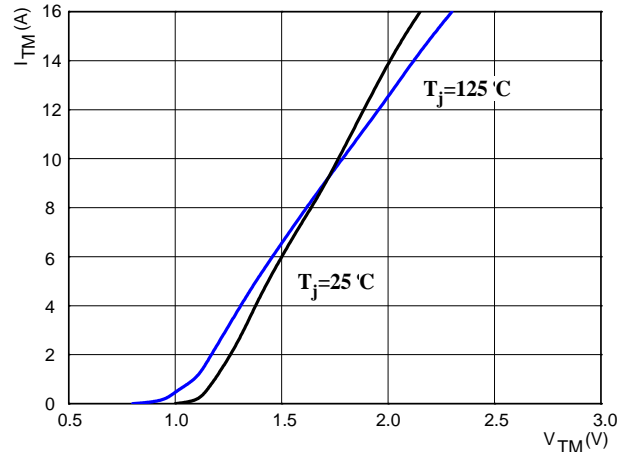


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 10\text{ms}$

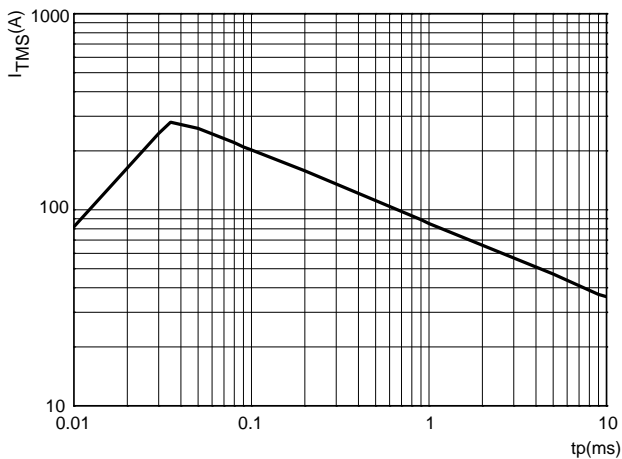


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature (typical values)

