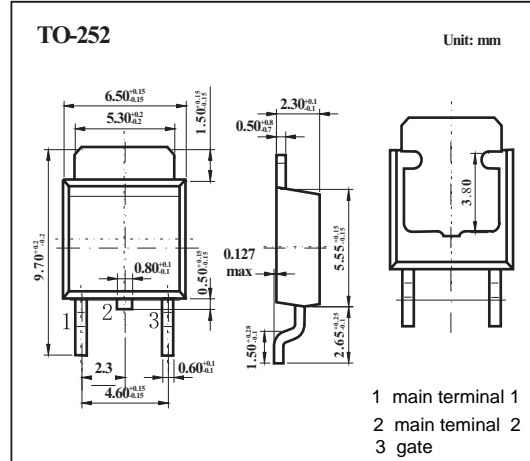
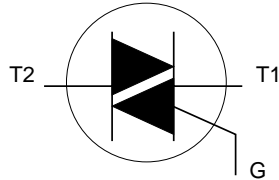


Triacs BT136-500

■ Features

- Repetitive peak off-state voltages : $V_{DRM}=500V$
- RMS on-state current : $I_T(RMS)=4A$
- Non-repetitive peak on-state current : $I_{TSM}=25A$



■ Absolute Maximum Ratings $T_a = 25^{\circ}C$

Parameter	Symbol	Testconditions	Rating	Unit
Repetitive peak off-state voltages	V_{DRM}		500	V
RMS on-state current	$I_T(RMS)$	full sine wave; $T_{mb} \leq 107^{\circ}C$	4	A
Non-repetitive peak on-state current	I_{TSM}	full sine wave; $T_j = 25^{\circ}C$ prior to surge	25	A
		$t = 20$ ms $t = 16.7$ ms	27	A
I ² t for fusing	I^2t	$t = 10$ ms	3.1	A ² S
Repetitive rate of rise of on-state current after triggering	dI_t / dt	$I_{TM} = 6$ A; $I_G = 0.2$ A; $dI_G/dt = 0.2$ A/ μ s		
		T2+ G+	50	A/ μ s
		T2+ G-	50	A/ μ s
		T2- G-	50	A/ μ s
		T2- G+	10	A/ μ s
Peak gate current	I_{GM}		2	A
Peak gate voltage	V_{GM}		5	V
Peak gate power	P_{GM}		5	W
Average gate power	$P_{G(AV)}$	over any 20 ms period	0.5	W
Storage temperature	T_{stg}		-40 to 150	$^{\circ}C$
Operating junction temperature	T_j		125	$^{\circ}C$
Thermal resistance junction to mounting base	$R_{th j-mb}$	full cycle	3.0	K/W
		half cycle	3.7	K/W
Thermal resistance junction to ambient	$R_{th j-a}$	in free air	60	K/W

BT136-500

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min			Typ	Max			Unit	
			... E	... F	... G		... E	... F	... G		
Gate trigger current	IGT	VD = 12 V; IT = 0.1 A				5	35	25	50	mA	
						T2+ G+	8	35	25	50	mA
						T2+ G-	11	35	25	50	mA
						T2- G-	30	70	70	100	mA
Latching current	IL	VD = 12 V; IGT = 0.1 A				7	20	20	30	mA	
						T2+ G+	16	30	30	45	mA
						T2+ G-	5	20	20	30	mA
						T2- G-	7	30	30	45	mA
Holding current	IH	VD = 12 V; IGT = 0.1 A				5	15	15	30	mA	
On-state voltage	VT	IT = 5 A				1.4	1.70			V	
Gate trigger voltage	VGT	VD = 12 V; IT = 0.1 A	0.25			0.7	1.5			V	
		VD = 400 V; IT = 0.1 A; Tj = 125°C				0.4				V	
Off-state leakage current	ID	VD = VDRM(max); Tj = 125°C				0.1	0.5			mA	
Critical rate of rise of off-state voltage	dVD/dt	VDM = 67% VDRM(max); Tj = 125 °C ; exponential waveform; gate open circuit	100	50	200	250				V/μs	
Critical rate of change of commutating voltage	dVcom/dt	VDM = 400 V; Tj = 95 °C ; IT(RMS) = 4 A; dIcom/dt = 1.8 A/ms; gate open circuit			10	50				V/μs	
Gate controlled turn-on time	tgt	ITM = 6 A; VD = VDRM(max); IG = 0.1 A; dIG/dt = 5 A/μs;				2				μs	