
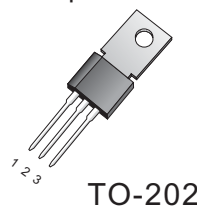


### HAOPIN MICROELECTRONICS CO.,LTD.

#### Description

Glass passivated, sensitive gate thyristors in a plastic envelope, intended for use in general purpose switching and phase control applications. These devices are intended to be interfaced directly to microcontrollers, logic integrated circuits and other low power gate trigger circuits.

<p>Symbol</p> 		<p>Simplified outline</p>  <p>TO-202</p>	
Pin	Description		
1	Cathode		
2	anode		
3	gate		
TAB	anode		

#### Applications:

- ◆ Motor control
- ◆ Industrial and domestic lighting
- ◆ Heating
- ◆ Static switching

#### Features

- ◆ Blocking voltage to 600 V
- ◆ On-state RMS current to 2 A
- ◆ Ultra low gate trigger current

SYMBOL	PARAMETER		Value	Unit
$V_{DRM}$	Repetitive peak off-state voltages	2P4M 2P6M	400 600	V
$I_T (RMS)$	RMS on-state current (full sine wave)		2	A
$I_{TSM}$	Non-repetitive peak on-state current (full cycle, $T_j$ initial=25°C)		20	A

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$R_{th j-c}$	Junction to Case		-	-	10	°C/W
$R_{th j-a}$	Junction to Ambient		-	-	70	°C/W



# 2P4M, 2P6M

## SCRs

HAOPIN MICROELECTRONICS CO.,LTD.

Limiting values in accordance with the Maximum system(IEC 134)

SYMBOL	PARAMETER	CONDITIONS	MIN	Rating	UNIT
$V_{DRM}$	Repetitive peak-off Voltage	2P4M 2P6M	-	400 600	V
$I_{T(RMS)}$	RMS on-state current		-	2	A
$I^2t$	$I^2t$ for fusing		-	33	A <sup>2</sup> S
$I_{T(AV)}$ $I_{TSM}$ $I_{FGM}$	Average On-Current Surge On-Current Peak Forward gate current		- - -	2.0 20 0.2	A A A
$V_{RGM}$	Peak Reverse Gate Voltage		-	6	V
$P_{GM}$	Peak gate power		-	0.5	W
$P_{G(AV)}$	Average gate power		-	0.1	W
$T_{stg}$	Storage junction Temperature Range		-55	+150	°C
$T_j$	Operating junction Temperature Range		-40	+125	°C

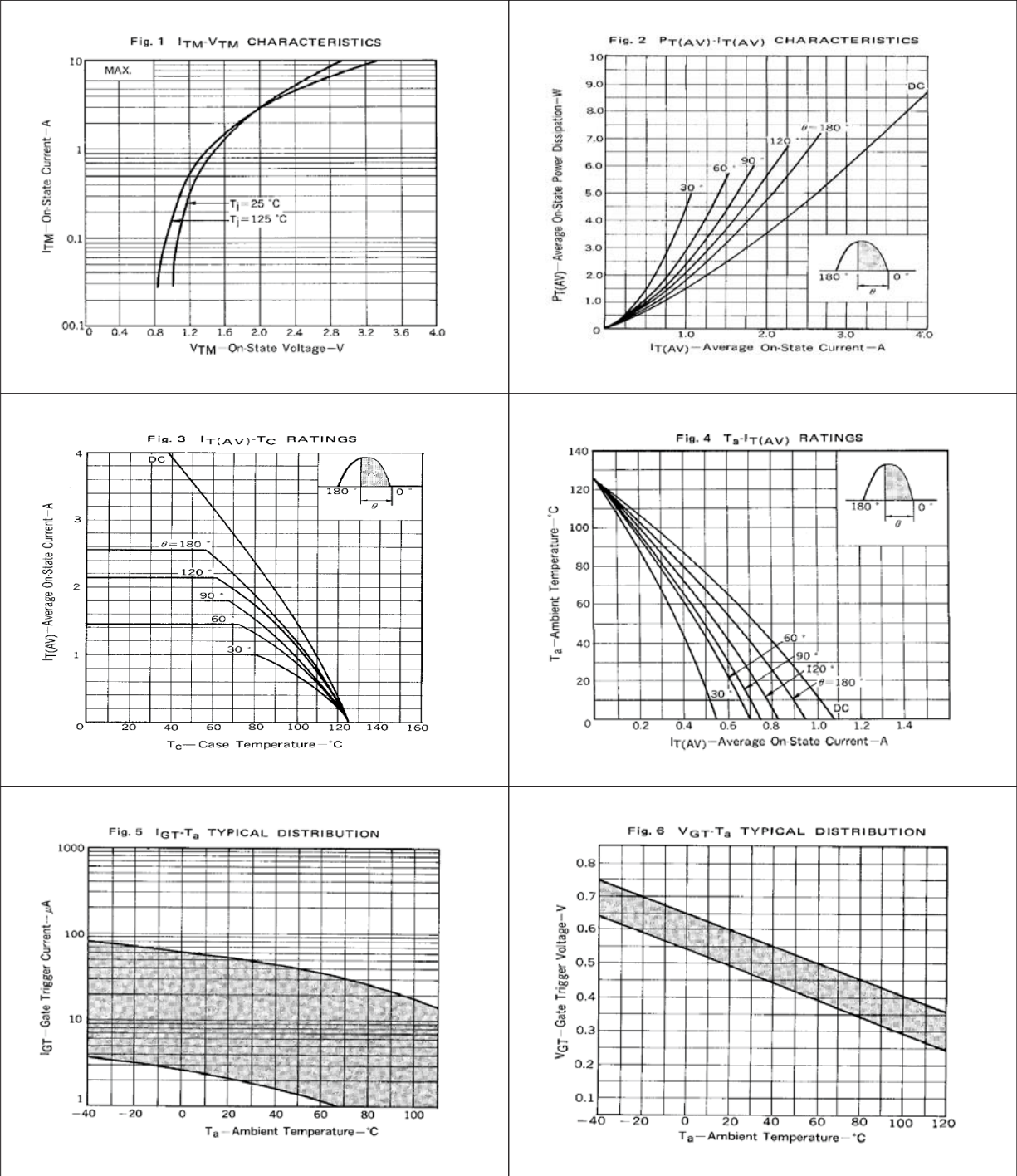
$T_j=25^{\circ}\text{C}$  unless otherwise stated

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
Static characteristics						
$I_{GT}$	Gate trigger current	$V_{DM}=6V, R_L=100\ \Omega, R_{GK}=1\ \text{K}\ \Omega$	-	-	200	$\mu\ \text{A}$
$I_{DRM}$	Repetitive Peak Off-State Current	$V_{RM}=V_{RRM}, T_j=125^{\circ}\text{C}, R_{GK}=1\ \text{K}\ \Omega$	-	-	100	$\mu\ \text{A}$
$V_{GD}$	Gate Non-Trigger Voltage	$V_{DM}=1/2V_{DRM}, T_j=125^{\circ}\text{C}, R_{GK}=1\ \text{K}\ \Omega$	0.2	-	-	V
$V_{TM}$	Peak On-Stage Voltage	$I_{TM}=4\ \text{A}$ ,	-	-	2.2	V
$V_{GT}$	Gate trigger voltage	$V_{DM}=6\ \text{V}, R_L=100\ \Omega, R_{GK}=1\ \text{K}\ \Omega$	-	-	0.8	V

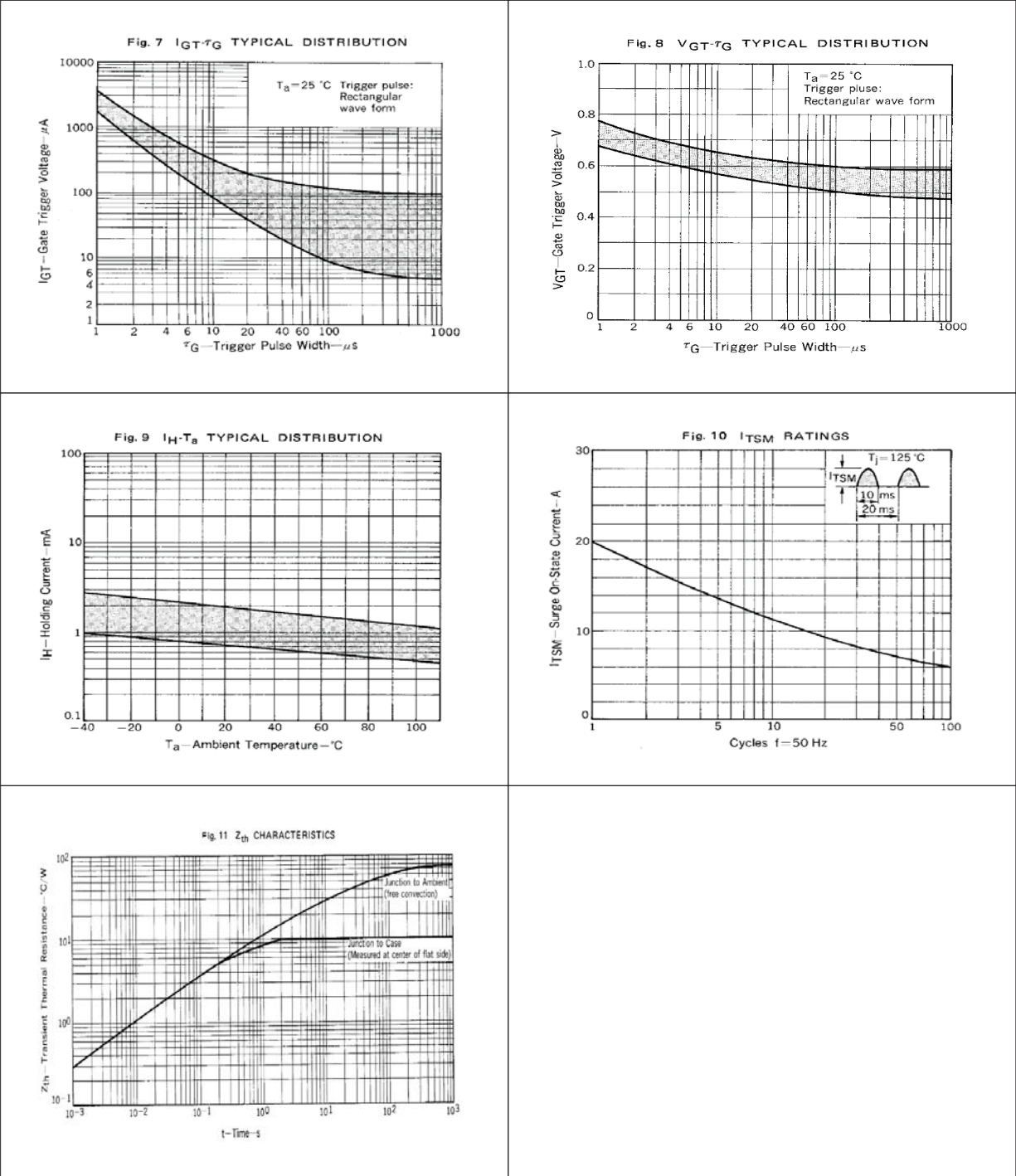
### Dynamic Characteristics

$I_{RRM}$	Repetitive Peak Reverse Current	$V_{RRM}=\text{Rated}, T_j=110^{\circ}\text{C}$ ,	-	-	100	$\mu\ \text{A}$
$R_{th(j-c)}$	Thermal Resistance	Junction to Case	-	-	10	°C/W

Description



Description

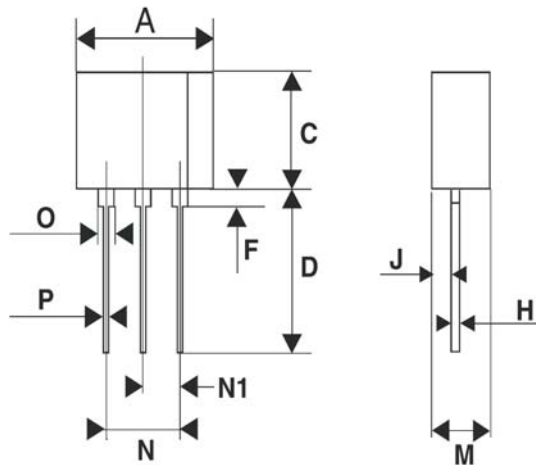


MECHANICAL DATA

Dimensions in mm

Net Mass:2 g

TO-202



REF.	DIMENSIONS					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A			10.1			0.398
C		7.3			0.287	
D		10.5			0.413	
F			1.5			0.059
H		0.51			0.020	
J		1.5			0.059	
M		4.5			0.177	
N			5.3			0.209
N1		2.54			0.100	
O			1.4			0.055
P			0.7			0.028