Tyrystor C106M (4A/600V) TO-126 CDIL RoHS

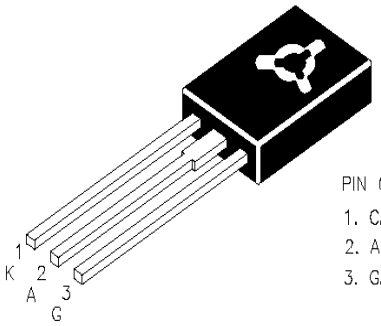
Dane techniczne:
Nazwa: C106M
Typ: Tyrystor
Napięcie wsteczne: 600V
Prąd przewodzenia: 4A
Prąd bramki: 0.2mA
Obudowa: TO-126
Producent: CDIL

SCR

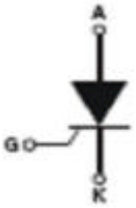
C106M, C106D

TO-126

Plastic Package



PIN CONFIGURATION:–
1. CATHODE
2. ANODE
3. GATE



SYMBOL

Features :

. High Blocking Voltage
. Low On-State Voltage and high I_{TSM}
. RoHS Compliant

Description :

Suitable to fit all Models of Control like Phase control, Heating Control, Voltage Regulation Circuits etc.

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

PARAMETER	SYMBOL	CONDITIONS	MIN	MAX	UNIT
Repetitive Peak Off-State Voltage	V_{DRM}	C106M		600	V
		C106D		400	
Repetitive Peak Reverse Voltage	V_{RRM}	C106M		600	V
		C106D		400	
Average On-State Current	$I_{T(AV)}$	Half Sine wave, Tamb ≤ 109°C		2.5	A
On-State RMS Current	$I_{T(RMS)}$	All Conduction Angles		4	A
Non-Repetitive Surge Peak On-state Current	I_{TSM}	Full Sine Wave, T_J=25°C, t=10ms		40	A
	I^2t	t=10ms		6	A^2s
Repetitive Rate of Rise of On-State Current After Triggering	di/dt	I_{TM}=20A, I_G=0.2A, dI_G/dt=0.2A/µs		50	A/µs
Peak Gate Current	I_{GM}			0.5	A
Peak Gate Power	P_{GM}			1	W
Average Gate Power	$P_{G(AV)}$	over any 20ms period		0.2	W
Storage Temperature Range	T_{STG}		-40	150	°C
Operating Junction Temperature	T_J			125	°C

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

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Peak Repetitive Forward Blocking Current	I_{DRM}	$V_{DM}=V_{DRM(MAX)}$, T_J=125°C		0.1	0.5	mA
Peak Repetitive Reverse Blocking Current	I_{RRM}	$V_{RM}=V_{RRM(MAX)}$, T_J=125°C		0.1	0.5	mA
Peak On-State Voltage	V_{TM}	I_{TM}=4A		1.3	2.2	V
Gate Trigger Current	I_{GT}	V_{DM}=12V, I_T=0.1A		50	200	µA
Gate Trigger Voltage	V_{GT}	V_{DM}=12V, I_T=0.1A		0.4	1.5	V
Holding Current	I_H	V_{DM}=12V, I_{GT}=0.1A		0.3	6	mA
Latching Current	I_L	V_{DM}=12V, I_{GT}=0.1A		0.4	10	mA
Rise of Off-State Voltage	dV/dt	V_{DM}=67%$V_{DRM(MAX)}$, T_J=125°C	50	100		V/µs
Gate Controlled Turn-On Time	tgt	I_{TM}=40A, $V_{DM}=V_{DRM(MAX)}$, I_G=0.1A, dI_G/dt=5A/µs		2		µs

THERMAL RESISTANCE

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Junction to Case (AC)	$R_{th(J-C)}$			3.0	K/W
Junction to Ambient	$R_{th(J-A)}$		75		K/W

TYPICAL CHARACTERISTICS CURVES

Fig. 1: Maximum average power dissipation versus average on-state current.

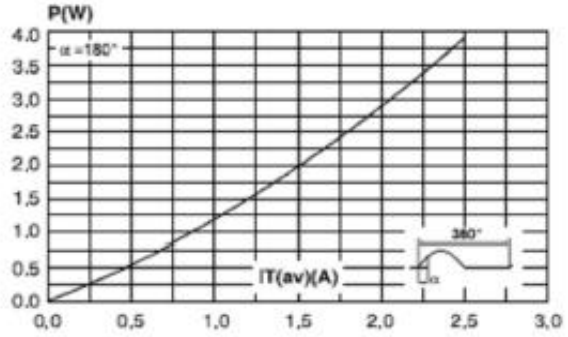


Fig.2 On-state characteristics (maximum values).

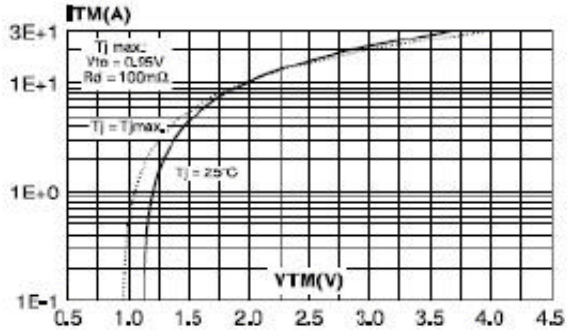
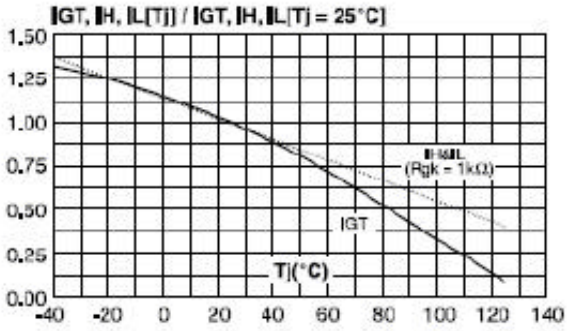
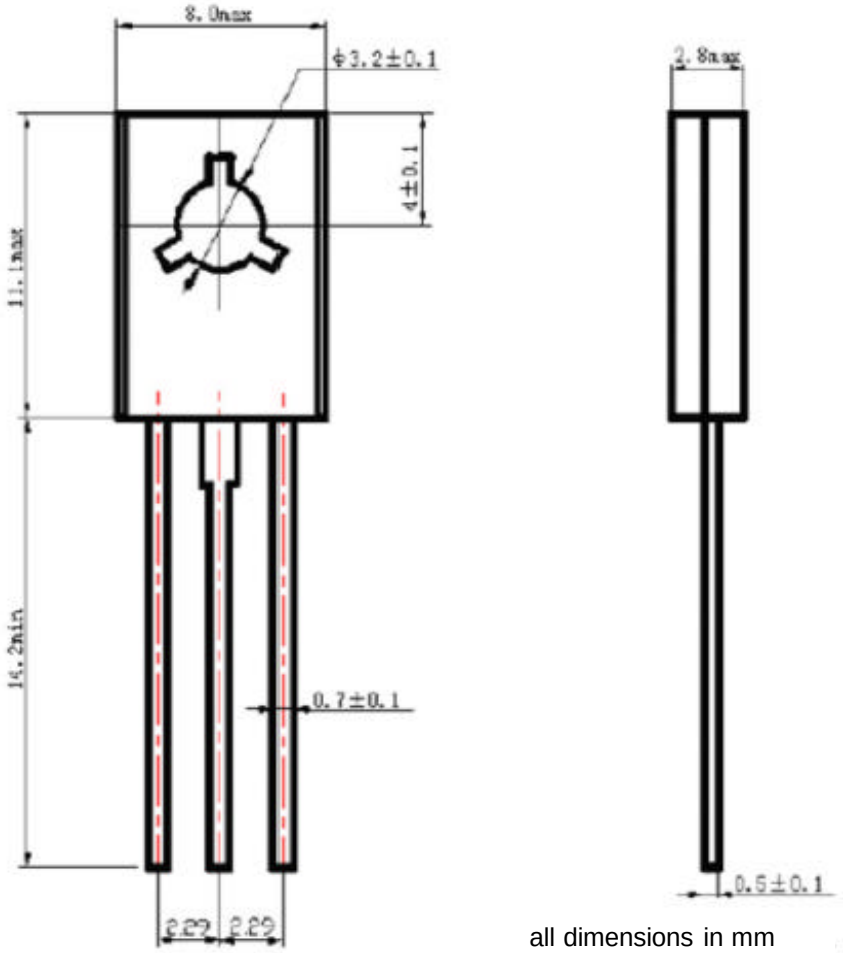


FIG. 3 lative variation of gate trigger current, holding current and latching current versus junction temperature (typical values).



TO-126 PACKAGE OUTLINE AND DIMENSION



all dimensions in mm

Customer Notes

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.

2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

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