

SANYO

No.799D

DTA-05

Silicon Planar Type

0.5A Bidirectional Thyristor**Features**

- Low AC power control
- Small size and light weight : 0.2g
- Peak OFF-state voltage : 100 to 400V
- RMS ON-state current : 0.5A
- TO-92 package

Absolute Maximum Ratings at Ta = 25°C

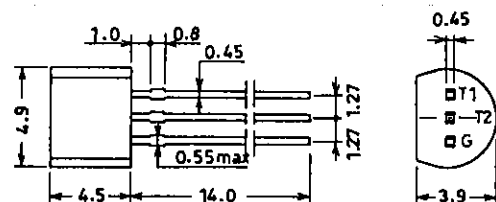
			DTA05B	DTA05C	DTA05E	unit
Repetitive Peak OFF-State Voltage	V_{DRM}		100	200	400	V
RMS ON-State Current	$I_T(RMS)$	Ta = 20°C, single-phase full-wave Peak 1 cycle, 50Hz	→	→	0.5	A
Surge ON-State Current	I_{TSM}		→	→	6	A
Amperes Squared-Seconds	$i^2t \cdot dt$		→	→	0.18	A ² s
Peak Gate Power Dissipation	P_{GM}		→	→	1	W
Average Gate Power Dissipation	$P_{G(AV)}$		→	→	0.1	W
Peak Gate Current	I_{GM}		→	→	0.5	A
Peak Gate Voltage	V_{GM}		→	→	6	V
Junction Temperature	T_j		→	→	110	°C
Storage Temperature	T_{stg}		→	→	-25 to +110	°C

Electrical Characteristics at Ta = 25°C

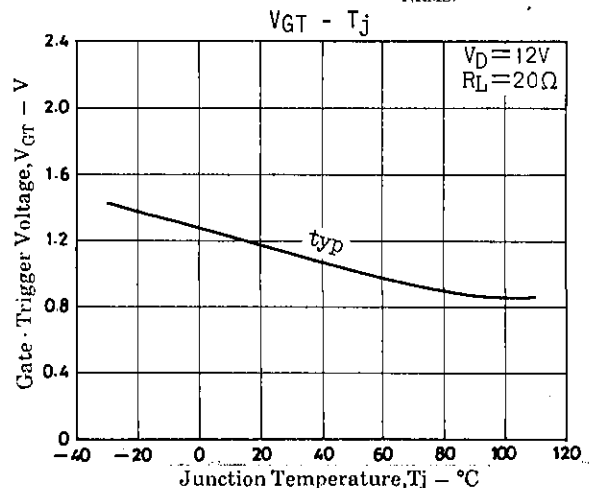
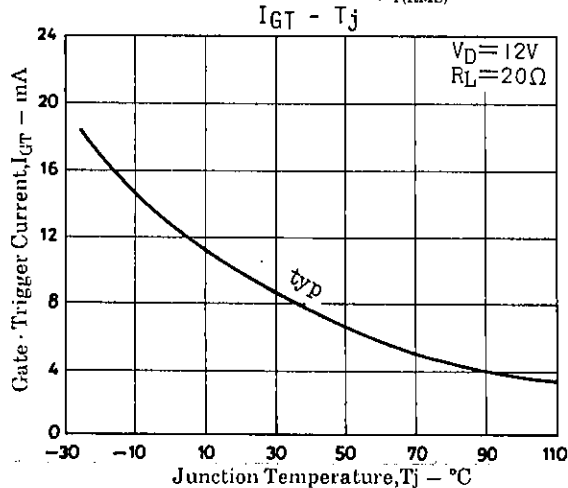
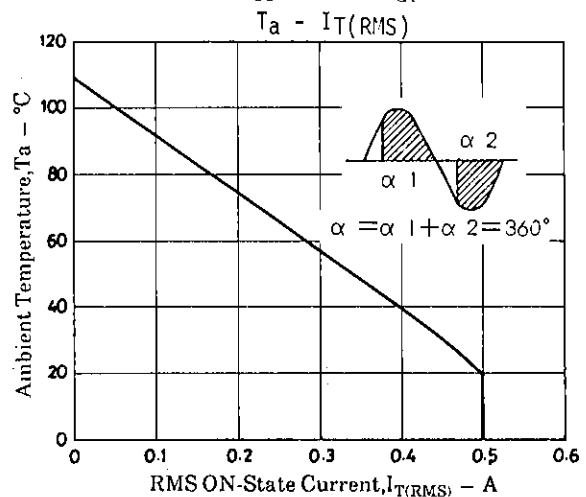
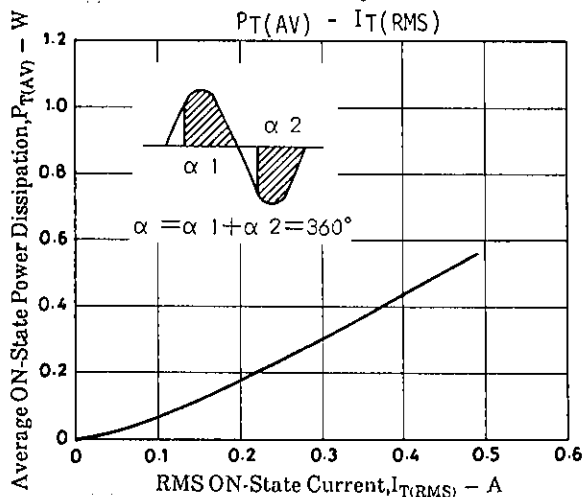
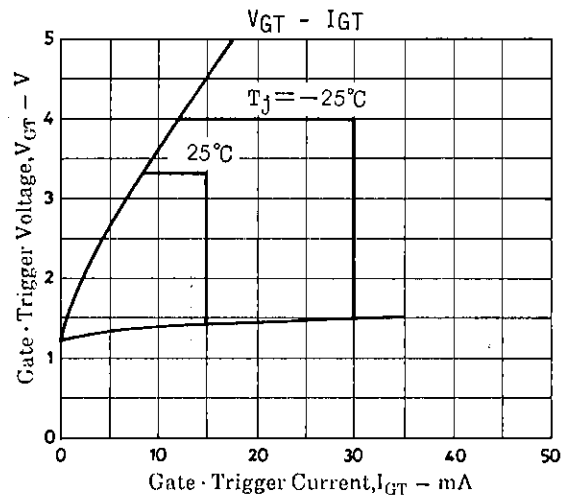
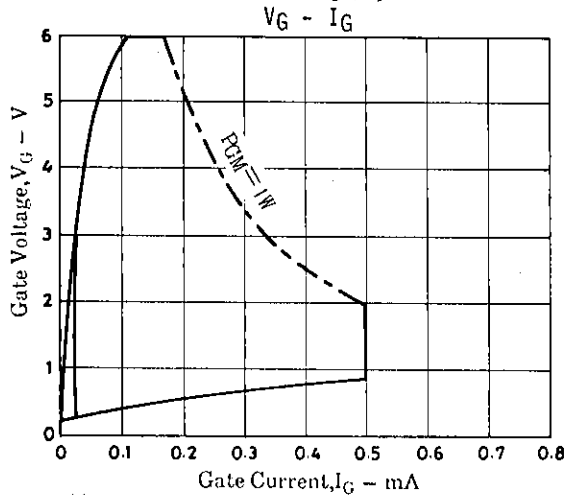
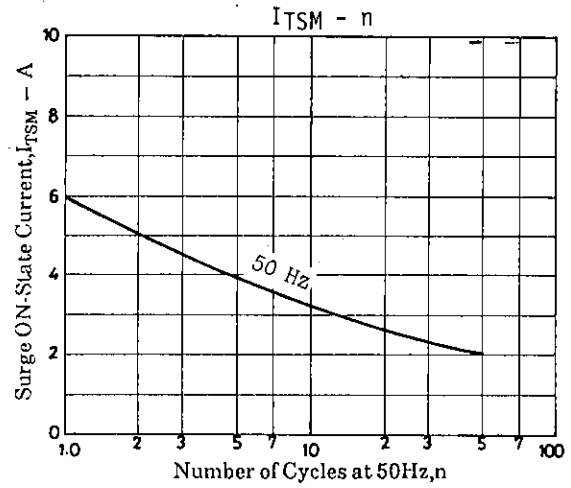
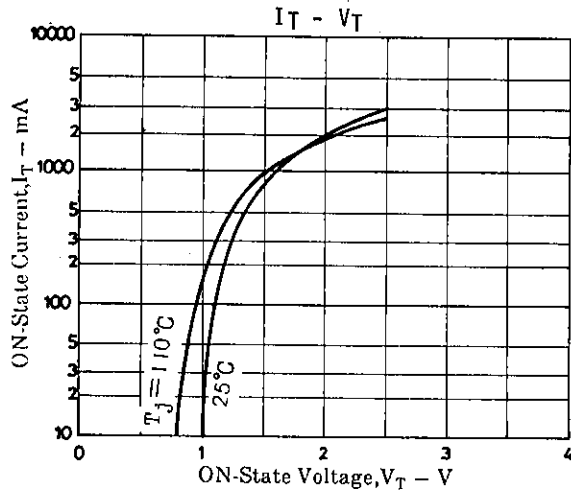
			min	typ	max	unit
Repetitive Peak OFF-State Current	I_{DRM}	$T_j = 110^\circ\text{C}, V_D = V_{DRM}$			0.1	mA
ON-State Voltage	V_T	$I_T = 2A$			2.0	V
Holding Current	I_H	$R_L = 100\Omega$			25	mA
Gate · Trigger Current ※ (I)	I_{GT}	$V_D = 12V, R_L = 20\Omega$			15	mA
" (II)	I_{GT}	$V_D = 12V, R_L = 20\Omega$			15	mA
" (III)	I_{GT}	$V_D = 12V, R_L = 20\Omega$			—	
" (IV)	I_{GT}	$V_D = 12V, R_L = 20\Omega$			15	mA
Gate · Trigger Voltage ※ (I)	V_{GT}	$V_D = 12V, R_L = 20\Omega$			2.3	V
" (II)	V_{GT}	$V_D = 12V, R_L = 20\Omega$			2.3	V
" (III)	V_{GT}	$V_D = 12V, R_L = 20\Omega$			—	
" (IV)	V_{GT}	$V_D = 12V, R_L = 20\Omega$			2.3	V
Gate · Nontrigger Voltage	V_{GD}	$T_c = 25^\circ\text{C}, V_D = V_{DRM}$	0.2			V
Thermal Resistance	$R_{th(j-a)}$				250	°C/W

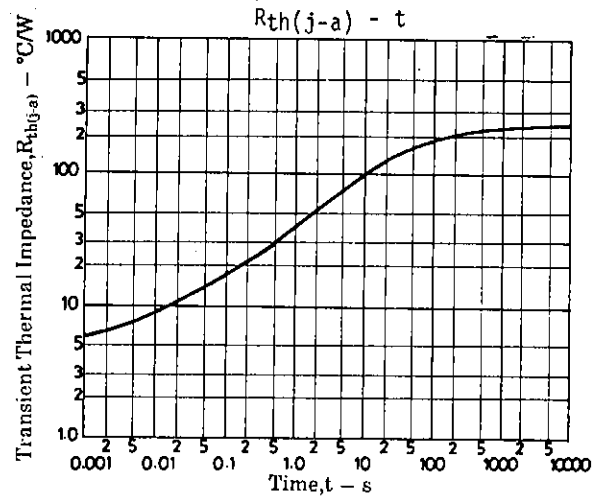
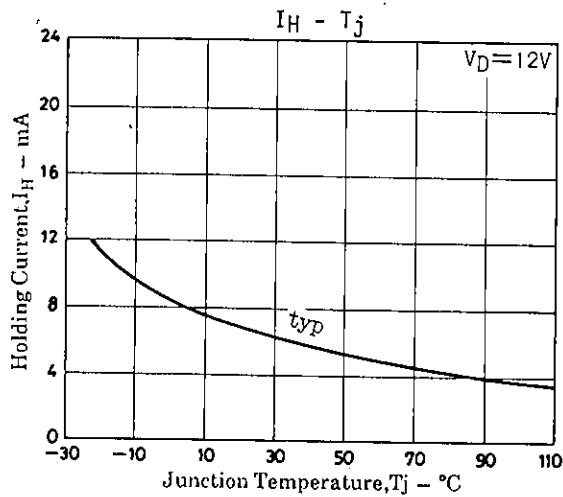
※ : The gate trigger mode is shown below.

Trigger mode	T2	T1	G
I	+	—	+
II	+	—	—
III	—	+	+
IV	—	+	—

Package Dimensions 1097A
(unit: mm)

G: Gate





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