Ordering number : EN799D

SANYO No.799D

DTA05

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	→	→	0.5	A
Surge ON-State Current	I_{TSM}	Peak 1 cycle,50Hz	→	→	6	A
Amperes Squared-Seconds	$\int i^2T\cdot dt$		→	→	0.18	A^2s
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	Tj		→	→	110	°C
Storage Temperature	Tstg		→	−25 to +110		°C

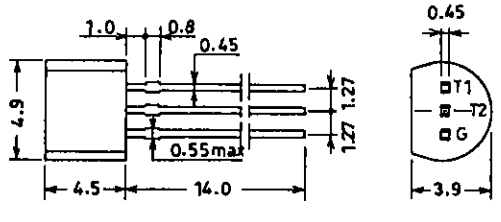
Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
Repetitive Peak OFF-State Current	I_{DRM}	Tj = 110°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 = 100Ω			25	mA
Gate · Trigger Current ※(I)	I_{GT}	V_D = 12V, R_L = 20Ω			15	mA
" (II)	I_{GT}	V_D = 12V, R_L = 20Ω			15	mA
" (III)	I_{GT}	V_D = 12V, R_L = 20Ω			–	
" (IV)	I_{GT}	V_D = 12V, R_L = 20Ω			15	mA
Gate · Trigger Voltage ※(I)	V_{GT}	V_D = 12V, R_L = 20Ω			2.3	V
" (II)	V_{GT}	V_D = 12V, R_L = 20Ω			2.3	V
" (III)	V_{GT}	V_D = 12V, R_L = 20Ω			–	
" (IV)	V_{GT}	V_D = 12V, R_L = 20Ω			2.3	V
Gate · Nontrigger Voltage	V_{GD}	Tc = 25°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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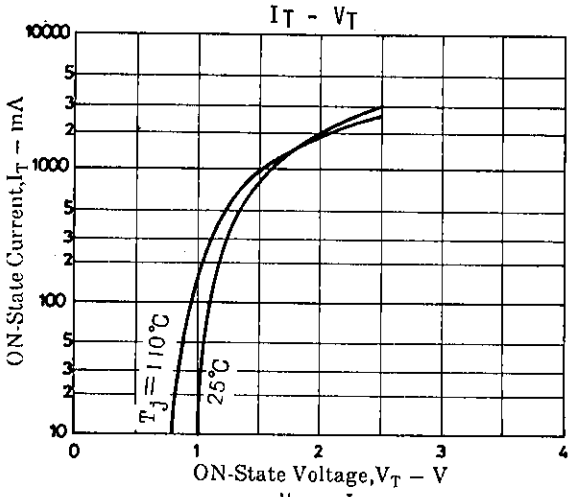
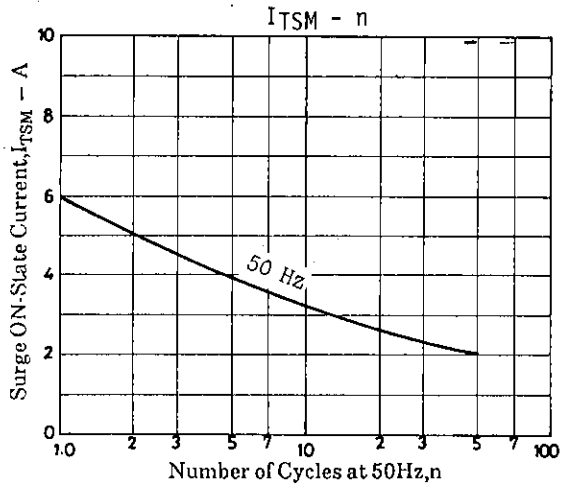
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

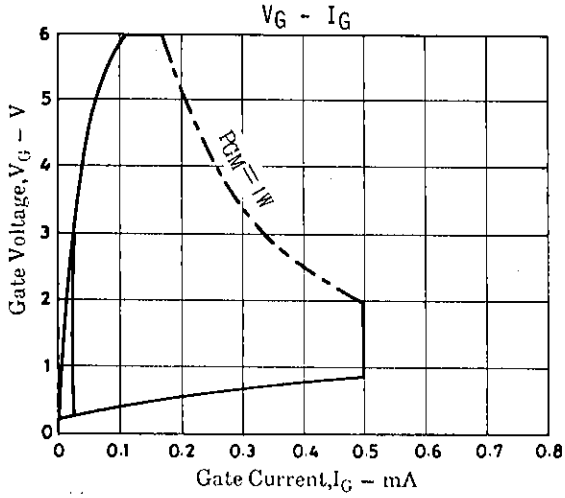
I_T - V_T



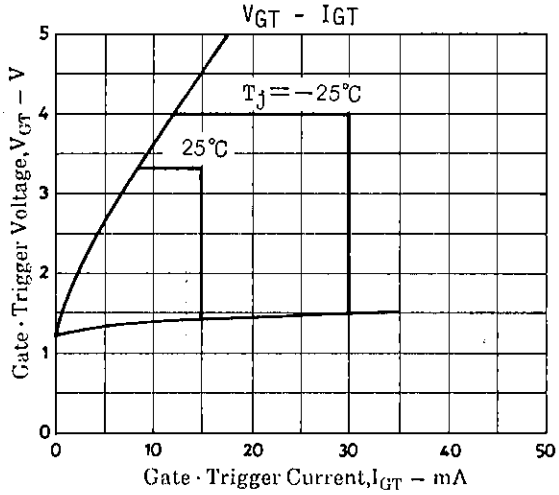
I_{TSM} - n



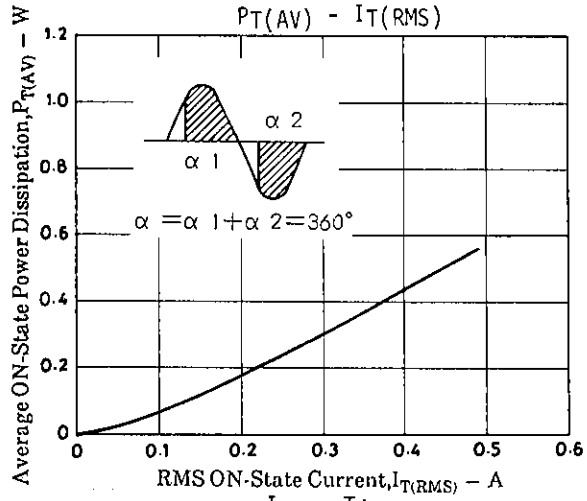
V_G - I_G



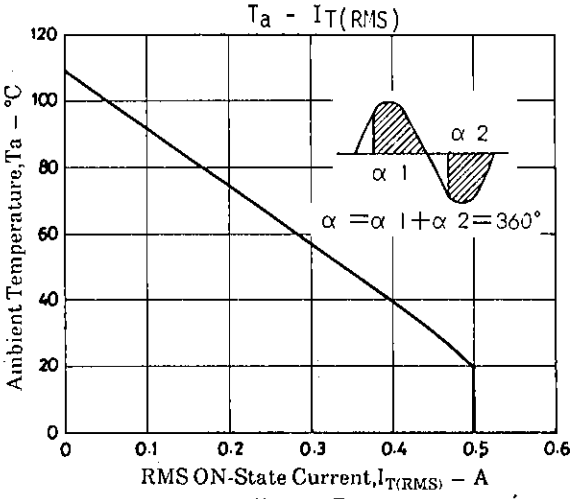
V_{GT} - I_{GT}



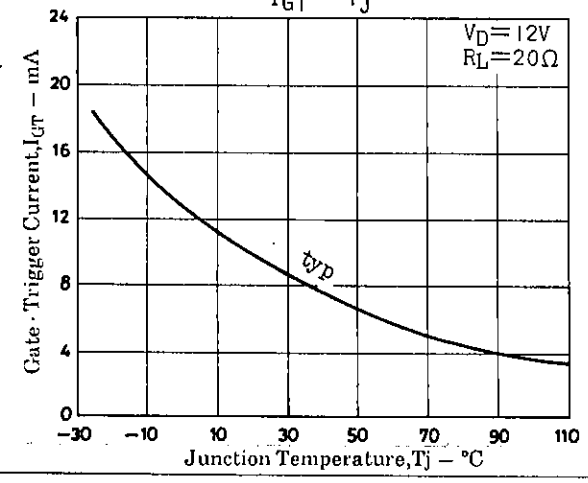
$P_{T(AV)}$ - $I_{T(RMS)}$



T_a - $I_{T(RMS)}$



I_{GT} - T_j



V_{GT} - T_j