

	No.799D	<h1 style="margin: 0;">DTA-05</h1> <p style="margin: 0;">Silicon Planar Type</p> <h2 style="margin: 0;">0.5A Bidirectional Thyristor</h2>
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**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	$i^2T-dt$	→	→	0.18	A <sup>2</sup> 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

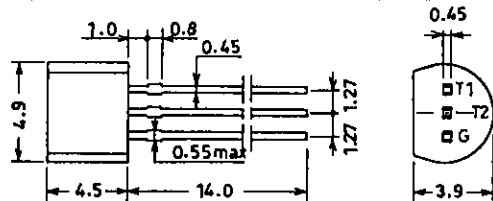
**Electrical Characteristics at Ta = 25°C**

			min	typ	max	unit
Repetitive Peak OFF-State Current	$I_{DRM}$	$T_j = 110°C, V_D = V_{DRM}$			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	$V_{GD}$	$T_c = 25°C, V_D = V_{DRM}$	0.2			V
Thermal Resistance	$R_{th(j-a)}$				250	°C/W

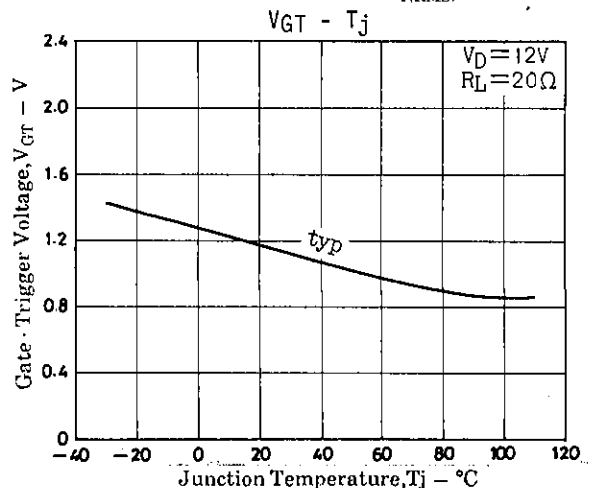
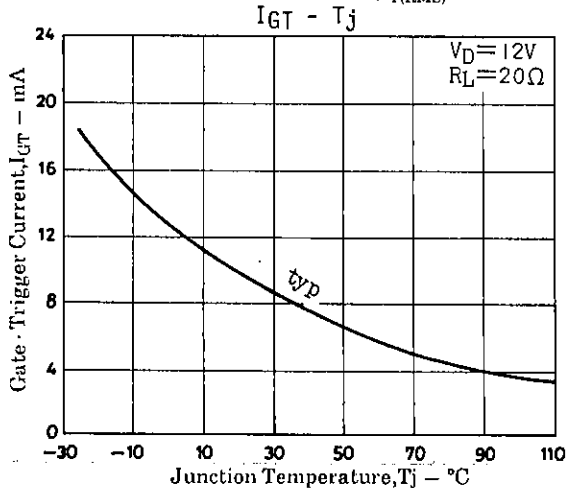
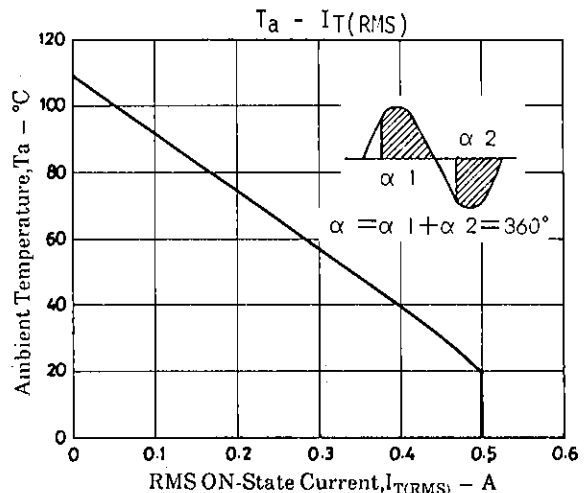
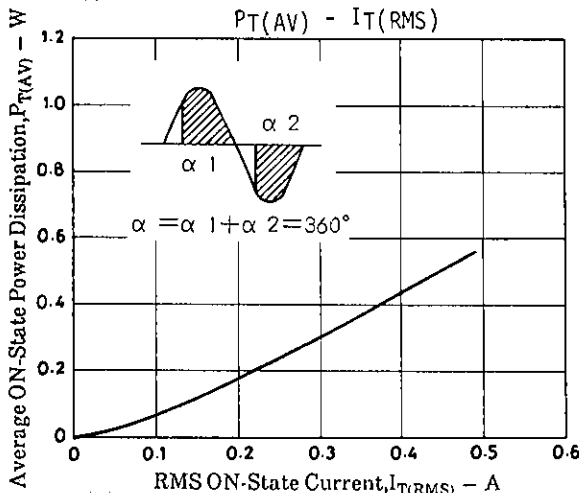
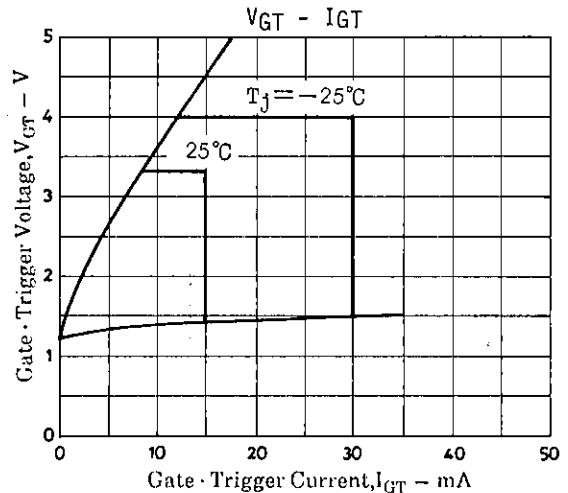
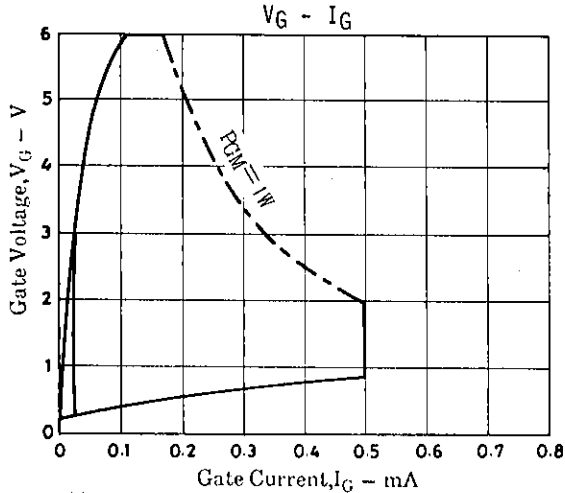
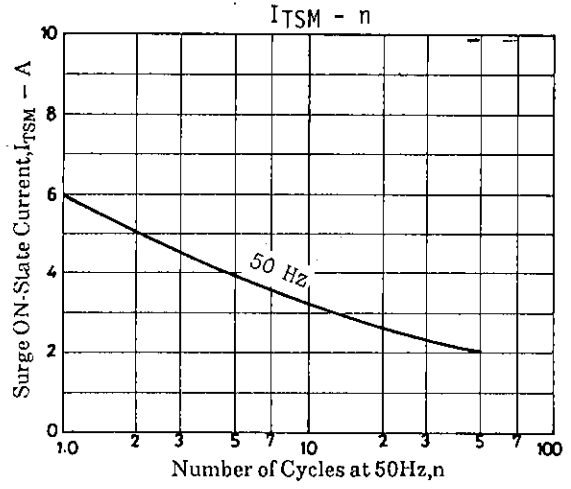
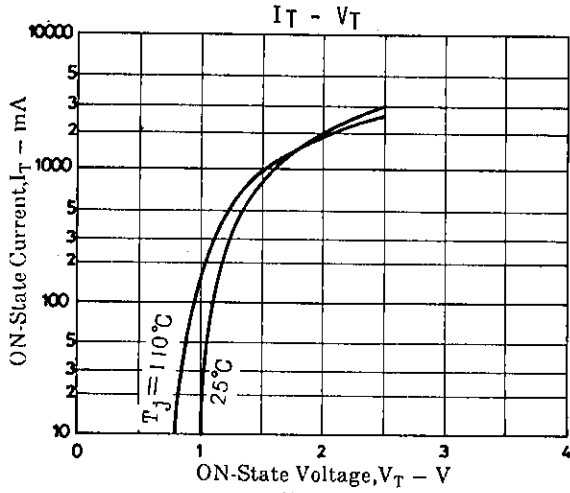
※ : The gate trigger mode is shown below.

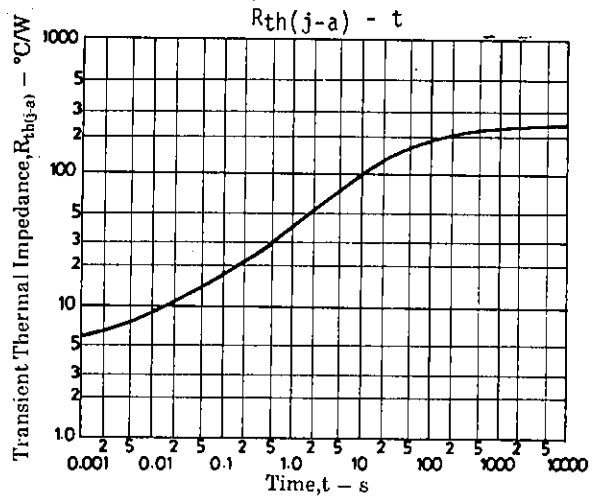
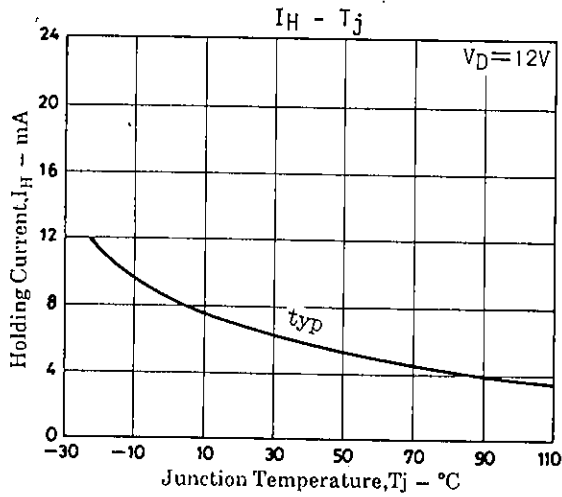
Trigger mode	T2	T1	G
I	+	-	+
II	+	-	-
III	-	+	+
IV	-	+	-

**Package Dimensions 1097A**  
(unit: mm)



G: Gate





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