

SANYO	No.2303A	DTM10-N Silicon Planar Type 10A Bidirectional Thyristor
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Features

- Insulation type
- Peak OFF-state voltage : 200 to 600V
- RMS ON-state current : 10A
- TO-220 package

Absolute Maximum Ratings at Ta = 25°C

		DTM10C-N	DTM10E-N	DTM10G-N	unit
Repetitive Peak OFF-State Voltage	V_{DRM}	200	400	600	V
RMS ON-State Current	I_T (RMS)	→		10	A
Surge ON-State Current	I_{TSM}	→		100	A
Amperes Squared-Seconds	$\int i^2 T \cdot dt$	→		32	A ² s
Peak Gate Power Dissipation	P_{GM}	→		5	W
Average Gate Power Dissipation	$P_{G(AV)}$	→		0.5	W
Peak Gate Current	I_{GM}	→		±2	A
Peak Gate Voltage	V_{GM}	→		±10	V
Junction Temperature	T_j	→		125	°C
Storage Temperature	T_{stg}	→		-40 to +125	°C
Weight		→		1.8	g

Electrical Characteristics at Ta = 25°C

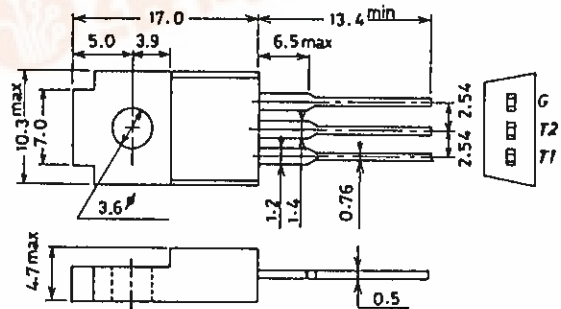
		$T_j = 125^\circ\text{C}, V_D = V_{DRM}$	min	typ	max	unit
Repetitive Peak OFF-State Current	I_{DRM}				2	mA
Peak ON-State Voltage	V_{TM}	$I_{TM} = 17\text{A}$			1.5	V
Critical Rate of Rise of OFF-State Voltage	$(dv/dt)_c$	$T_j = 125^\circ\text{C}, V_D = 200\text{V (C)}, 400\text{V (E to G)}$	10			V/ μs
Holding Current	I_H	$R_L = 100\Omega$			50	mA

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※ : The gate trigger mode is shown below.

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

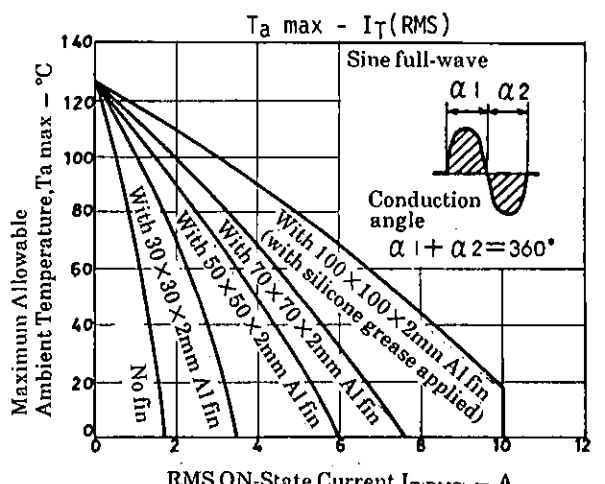
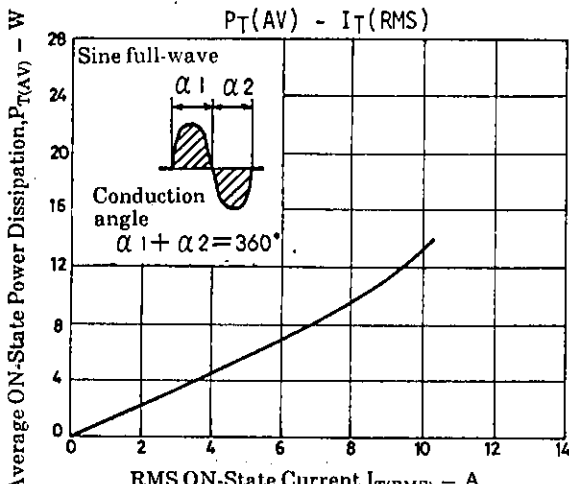
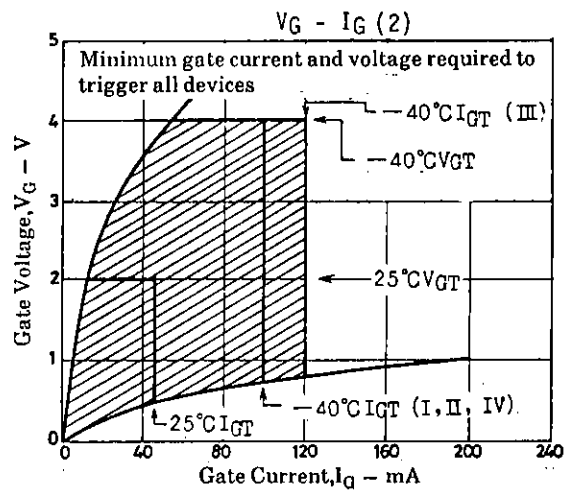
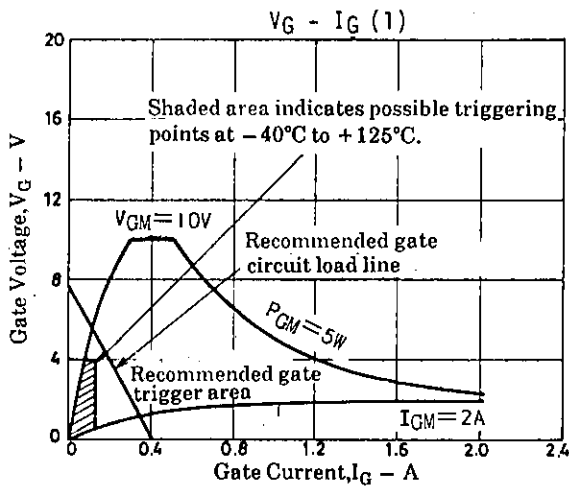
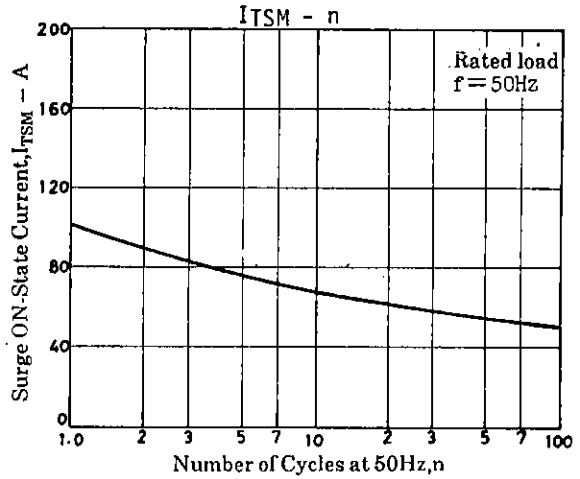
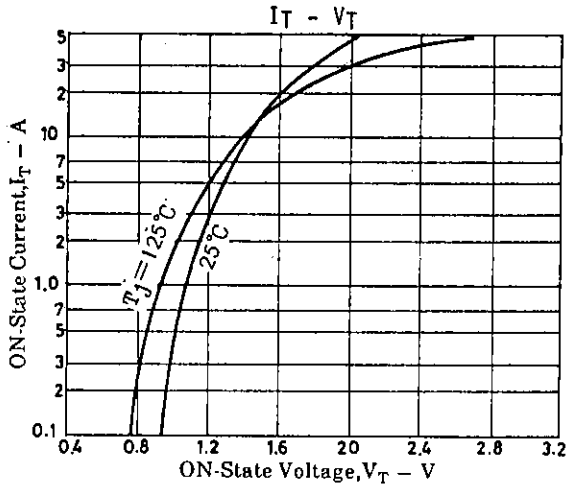
Package Dimensions 1144 (unit: mm)



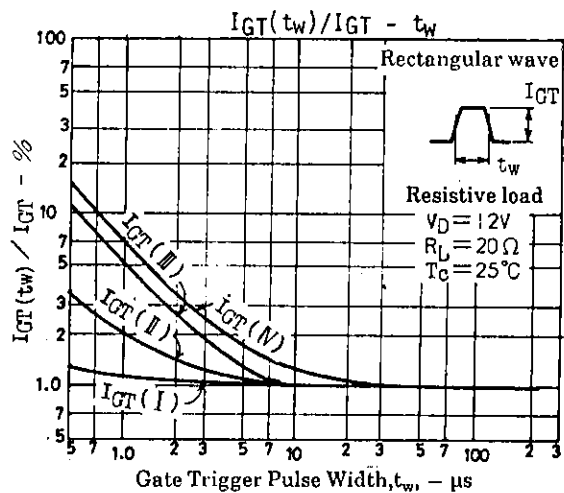
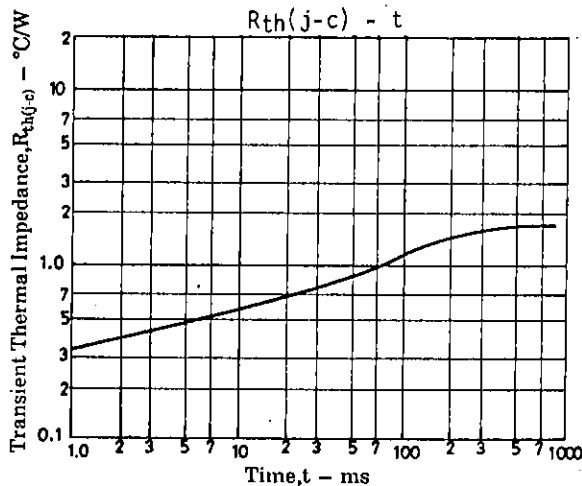
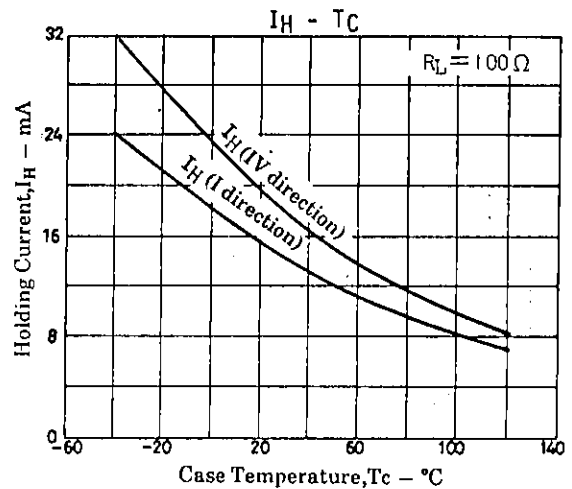
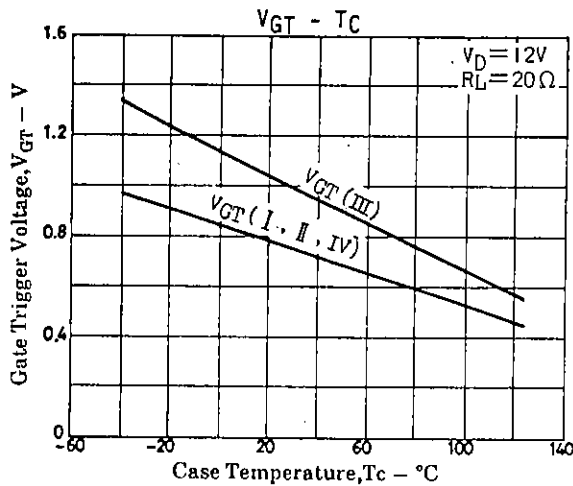
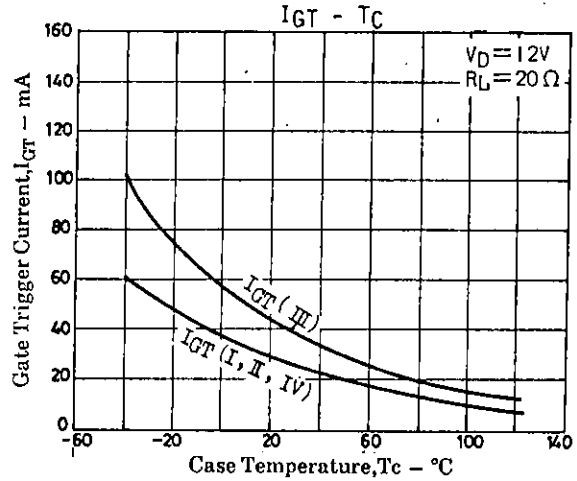
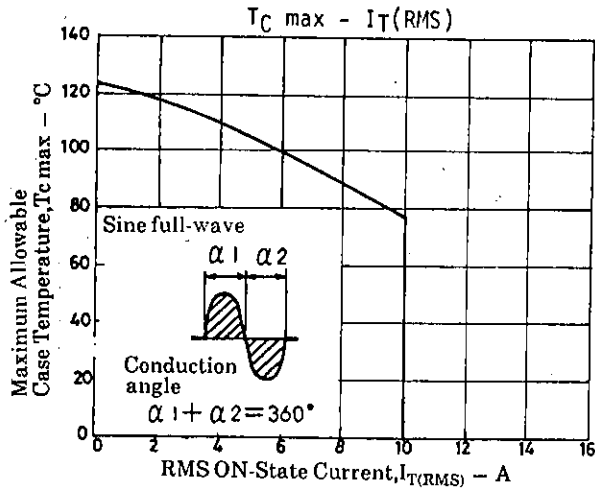
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			min	typ	max	unit
Gate Trigger Current (I)	I_{GT}	$V_D = 12V, R_L = 20\Omega$			30	mA
"	(II) I_{GT}	$V_D = 12V, R_L = 20\Omega$			30	mA
"	(III) I_{GT}	$V_D = 12V, R_L = 20\Omega$			50	mA
"	(IV) I_{GT}	$V_D = 12V, R_L = 20\Omega$			30	mA
Gate Trigger Voltage (I)	V_{GT}	$V_D = 12V, R_L = 20\Omega$			2	V
"	(II) V_{GT}	$V_D = 12V, R_L = 20\Omega$			2	V
"	(III) V_{GT}	$V_D = 12V, R_L = 20\Omega$			2	V
"	(IV) V_{GT}	$V_D = 12V, R_L = 20\Omega$			2	V
Gate Nontrigger Voltage	V_{GD}	$T_c = 125^\circ C, V_D = V_{DRM}$	0.2			V
Thermal Resistance	$R_{th(j-c)}$	Between junction and case, AC			3.0	$^\circ C/W$



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