

SANYO	No.2303A	DTM10-N
		Silicon Planar Type

10A Bidirectional Thyristor

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	∫i ² T·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

T_c = 83°C, single-phase full-wave Peak 1 cycle, 50Hz
1ms ≤ t ≤ 10ms
f ≥ 50Hz, duty ≤ 10%

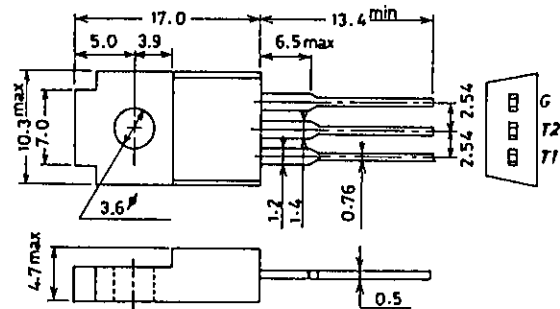
Electrical Characteristics at Ta = 25°C			min	typ	max	unit
Repetitive Peak OFF-State Current	I _{DRM}	T _j = 125°C, V _D = V _{DRM}			2	mA
Peak ON-State Voltage	V _{TM}	I _{TM} = 17A			1.5	V
Critical Rate of Rise of OFF-State Voltage	(dv/dt) _c	T _j = 125°C, V _D = 200V (C), 400V (E to G)	10			V/μs
Holding Current	I _H	R _L = 100Ω			50	mA

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※ : The gate trigger mode is shown below.

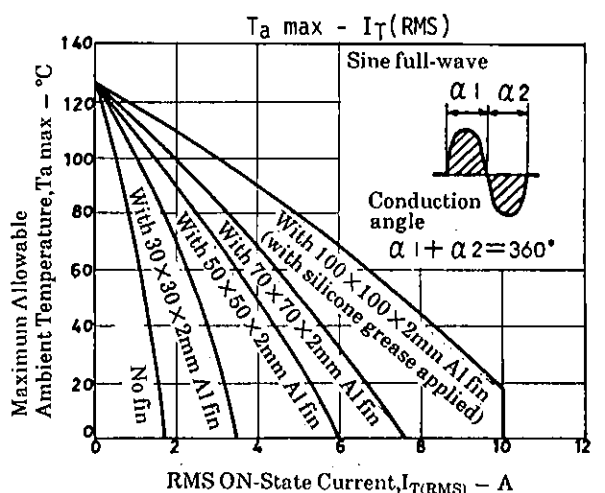
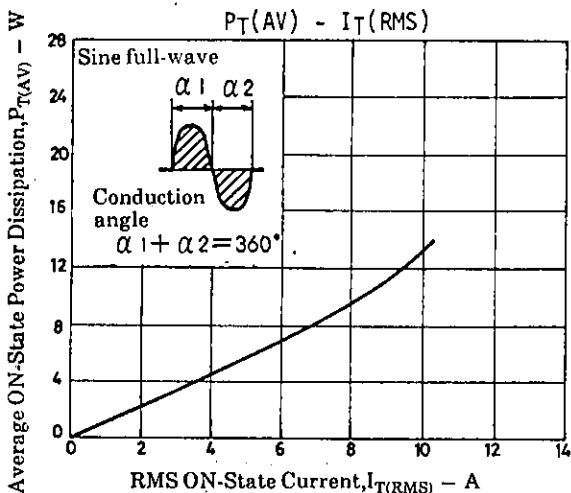
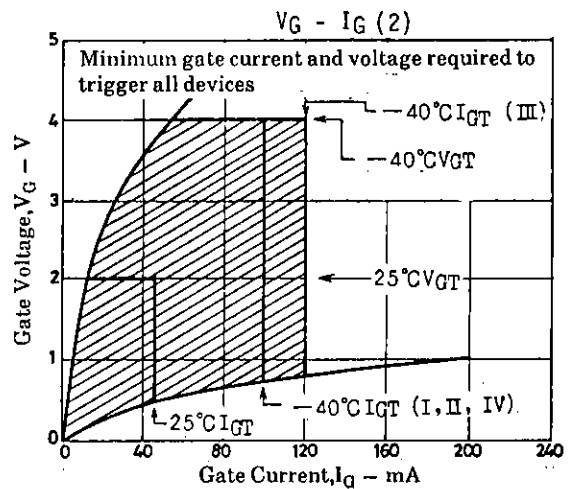
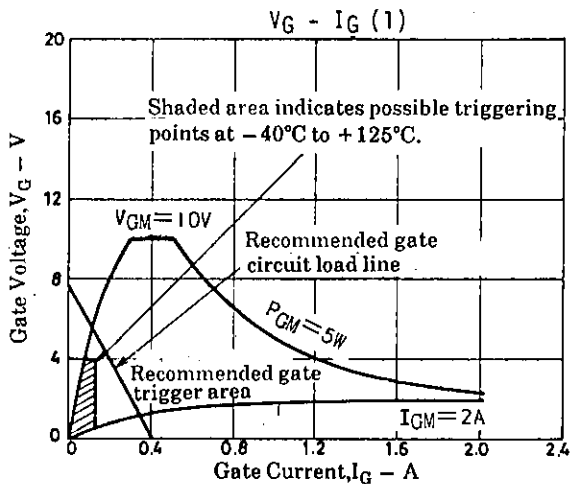
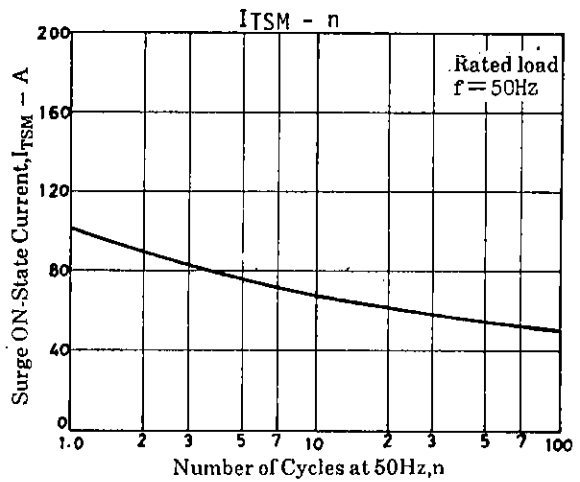
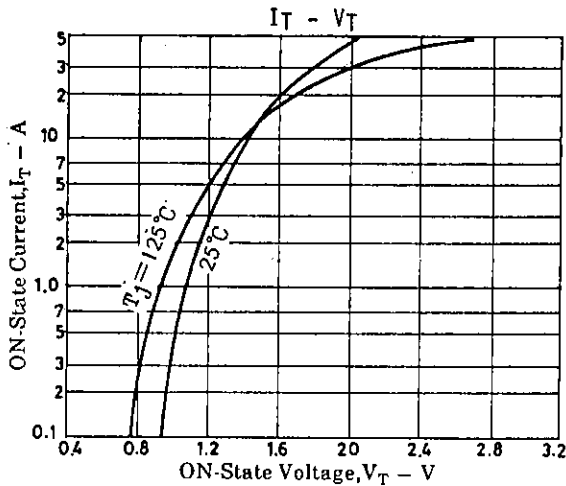
Trigger mode	T2	T1	G
I	+	-	+
II	+	-	-
III	-	+	+
IV	-	+	-

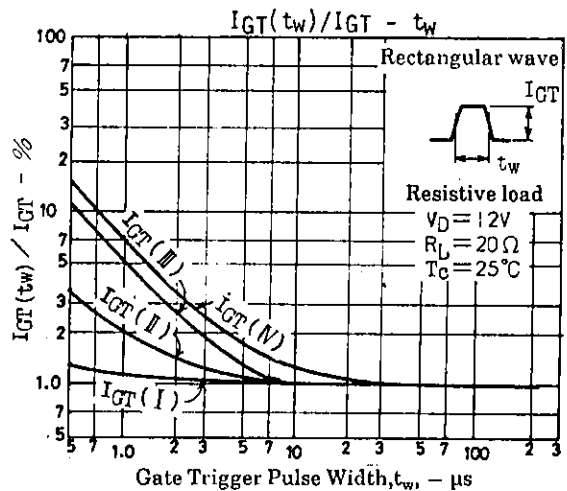
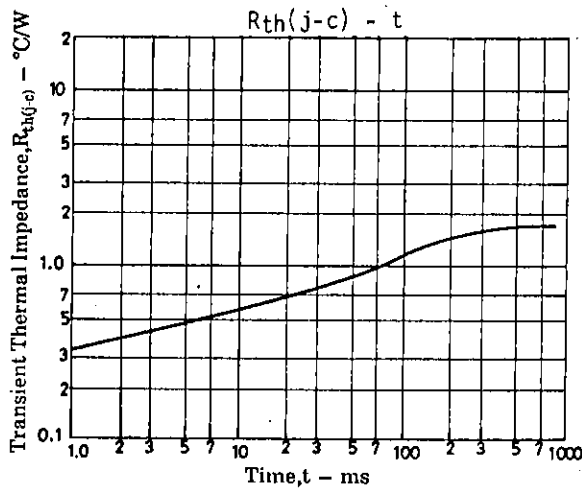
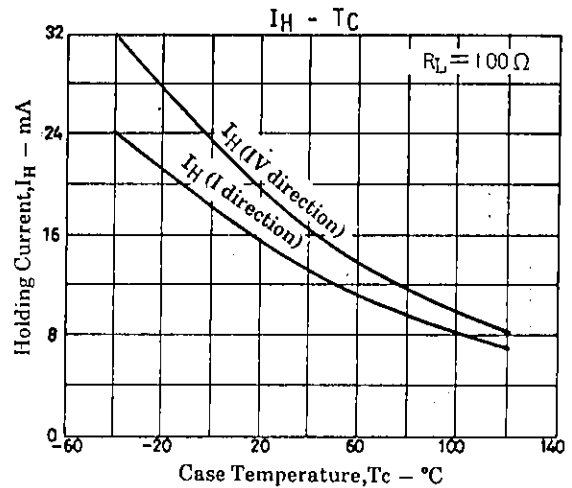
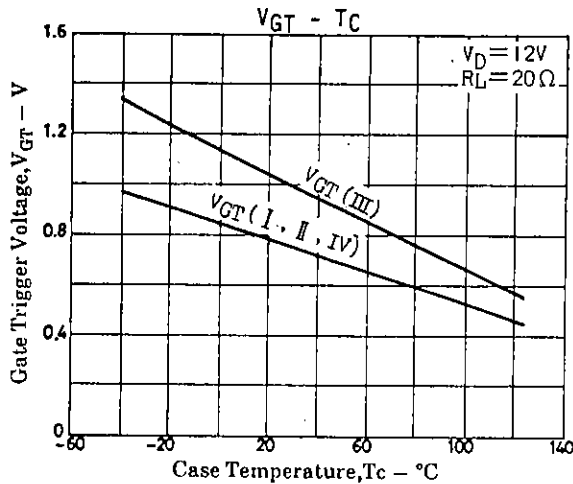
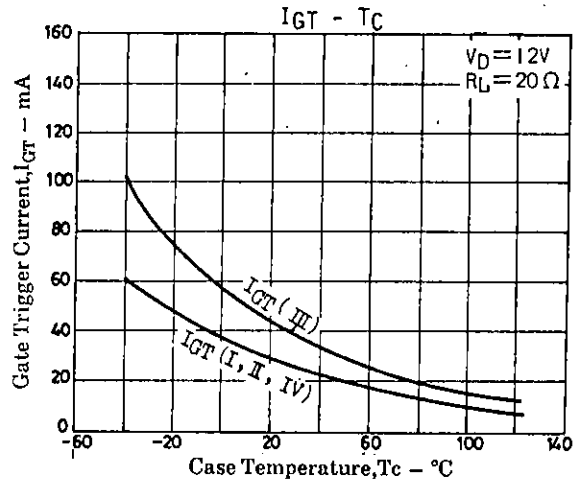
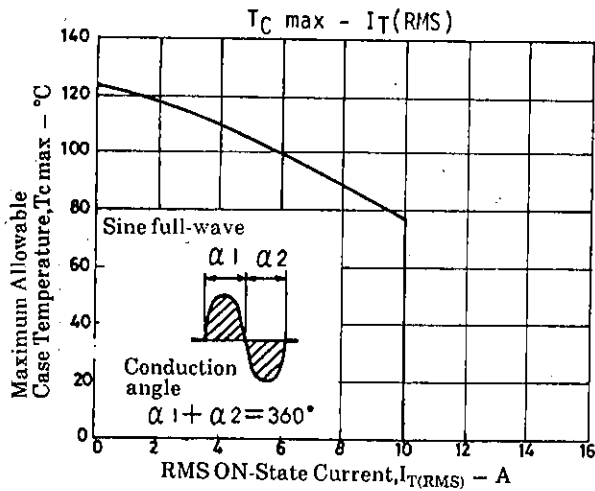
Package Dimensions 1144
(unit: mm)



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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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