

SANYO	No.1878B	DTM-6-N
		Silicon Planar Type 6A Bidirectional Thyristor

Features

- Insulation type
- Peak OFF-state voltage : 200 to 600V
- RMS ON-state current : 6A
- TO-220 package

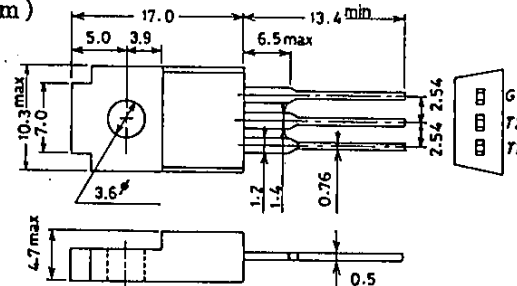
Absolute Maximum Ratings at Ta=25°C			DTM6C-N	DTM6E-N	DTM6G-N	unit
Repetitive Peak OFF-State Voltage	V _{DRM}		200	400	600	V
RMS ON-State Current	I _{T(RMS)}	Tc=70°C, single-phase full-wave	→	→	6	A
Surge ON-State Current	I _{TSM}	Peak 1 cycle, 50Hz	→	→	60	A
Amperes Squared-Seconds	f ⁱ² T-dt	1ms ≤ t ≤ 10ms	→	→	18	A ² s
Peak Gate Power Dissipation	P _{GM}	f ≥ 50Hz, duty ≤ 10%	→	→	5	W
Average Gate Power Dissipation	P _{G(AV)}		→	→	0.5	W
Peak Gate Current	I _{GM}	f ≥ 50Hz, duty ≤ 10%	→	→	±2	A
Peak Gate Voltage	V _{GM}	f ≥ 50Hz, duty ≤ 10%	→	→	±10	V
Junction Temperature	T _j		→	→	125	°C
Storage Temperature	T _{stg}		→	→	-40 to +125	°C
Weight			→	→	2.1	g

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} = 9A			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
Gate Trigger Current※ (I)	(I) I _{GT}	V _D = 12V, R _L = 20Ω			30	mA
	(II) I _{GT}	V _D = 12V, R _L = 20Ω			30	mA
	(III) I _{GT}	V _D = 12V, R _L = 20Ω			50	mA
	(IV) I _{GT}	V _D = 12V, R _L = 20Ω			30	mA
Gate Trigger Voltage※ (I)	(I) V _{GT}	V _D = 12V, R _L = 20Ω			2	V
	(II) V _{GT}	V _D = 12V, R _L = 20Ω			2	V
	(III) V _{GT}	V _D = 12V, R _L = 20Ω			2	V
	(IV) V _{GT}	V _D = 12V, R _L = 20Ω			2	V
Gate Nontrigger Voltage	V _{GD}	Tc = 125°C, V _D = V _{DRM}	0.2			V
Thermal Resistance	R _{th(j-c)}	Between junction and case, AC			3.8	°C/W

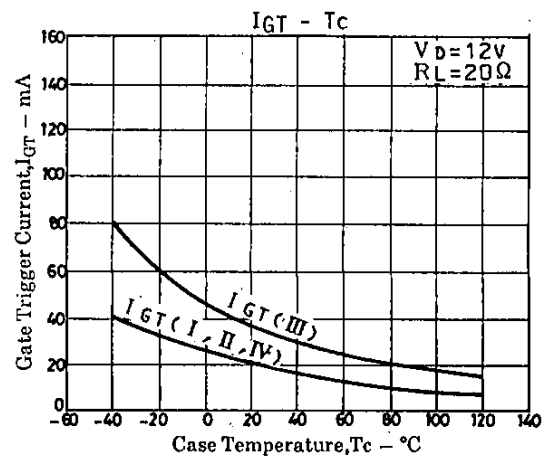
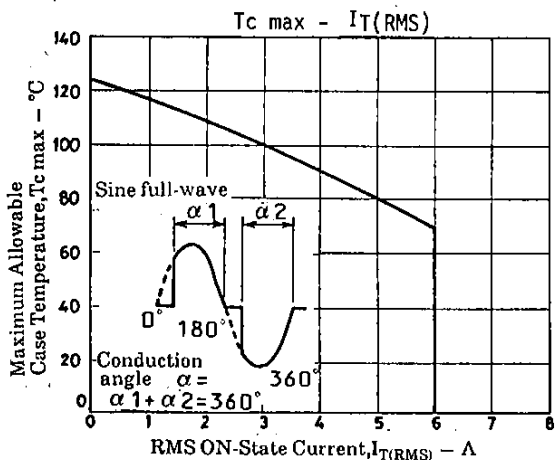
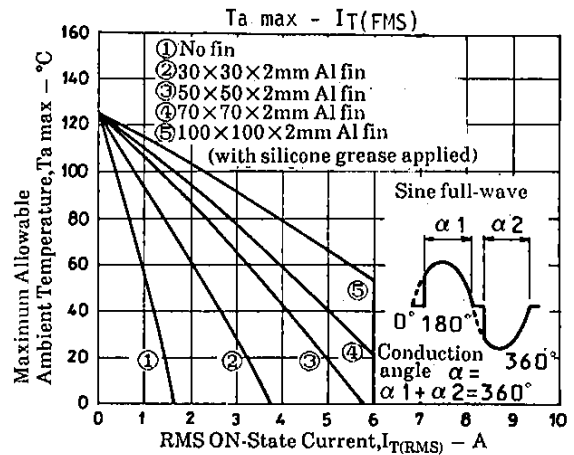
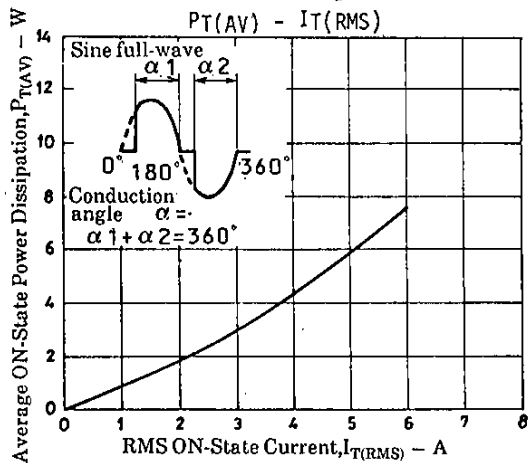
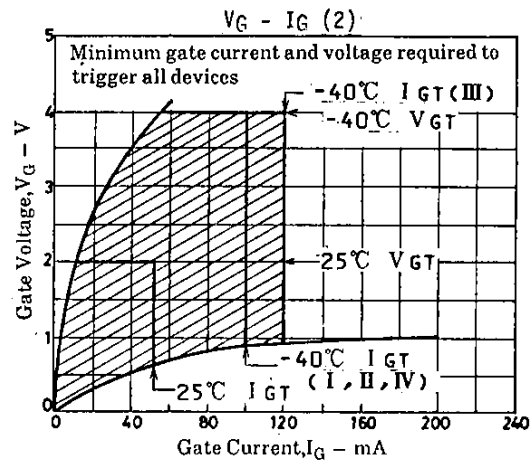
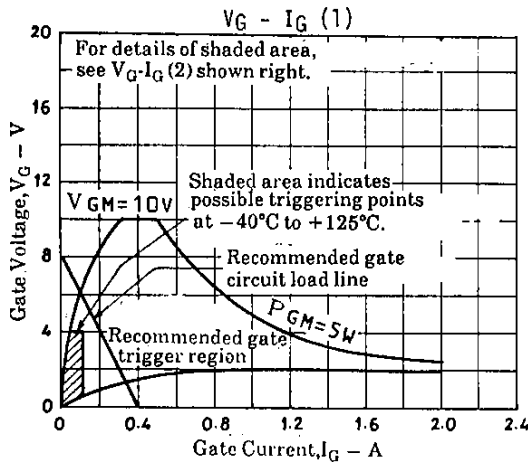
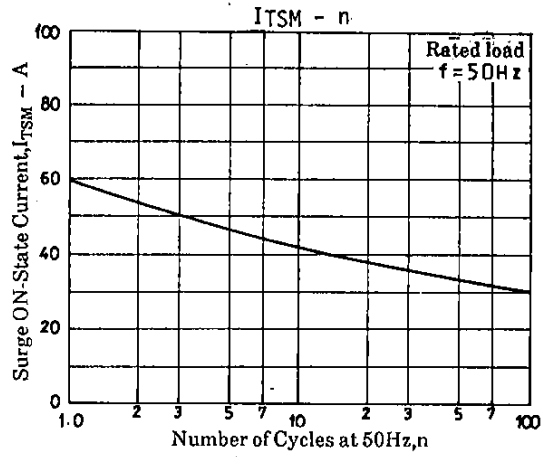
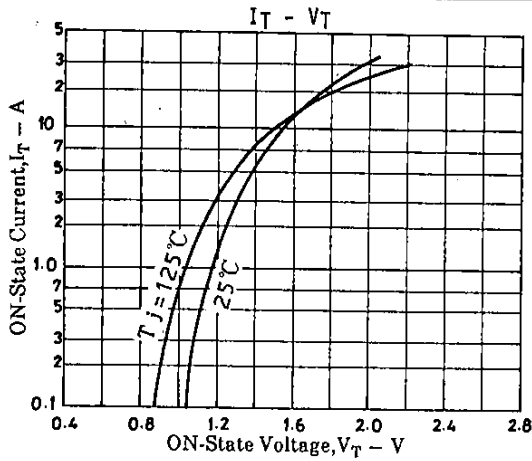
※ : The gate trigger mode is shown below.

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

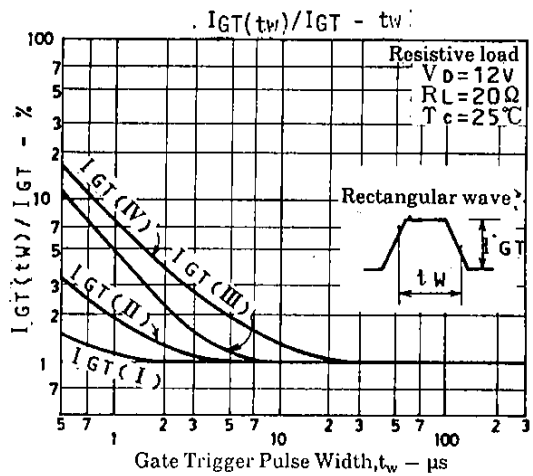
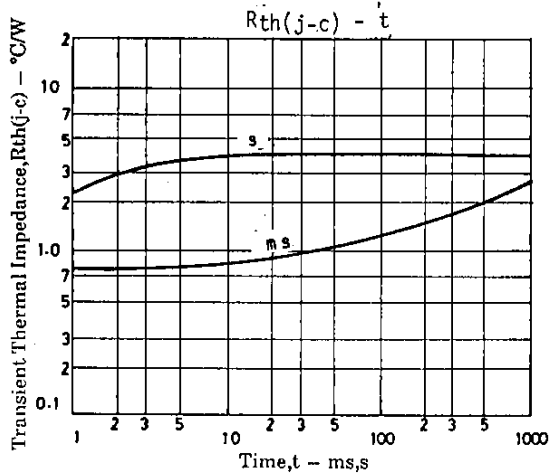
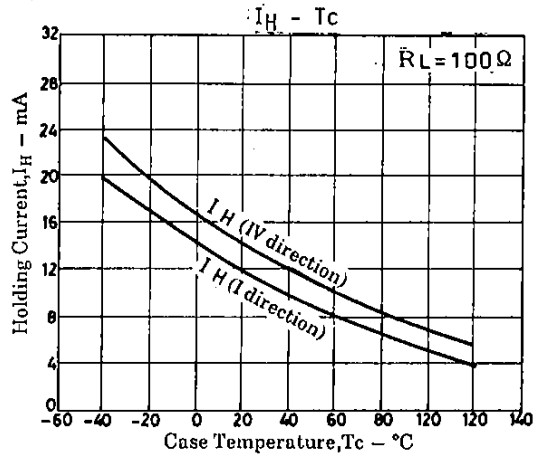
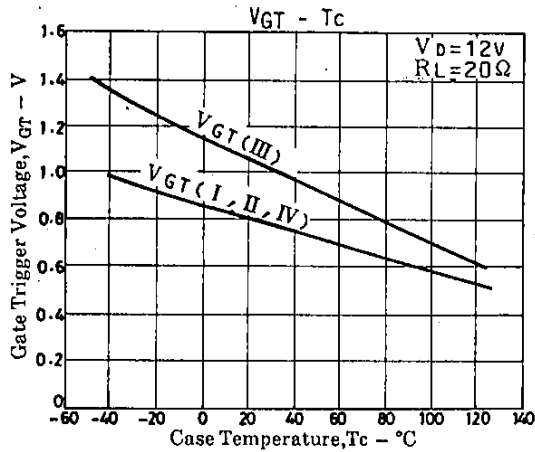
Package Dimensions 1144
(unit: mm)



DTM6-N



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