

	No.1879B	<h1 style="margin: 0;">DTM8-N</h1> <p style="margin: 0;">Silicon Planar Type</p> <h2 style="margin: 0;">8A Bidirectional Thyristor</h2>
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Features

- Insulation type
- Peak OFF-state voltage : 200 to 600V
- RMS ON-state current : 8A
- TO-220 package

Absolute Maximum Ratings at Ta = 25°C

		CDTM 8C-N	DTM 8E-N	DTM 8G-N	unit
Repetitive Peak OFF-State Voltage	V _{DRM}	200	400	600	V
RMS ON-State Current	I _{T(RMS)}	→	→	8	A
Surge ON-State Current	I _{TSM}	→	→	80	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		→	→	2.1	g

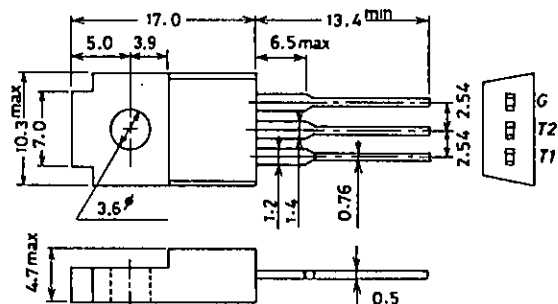
T_c = 83°C, single-phase full-wave Peak 1 cycle, 50Hz
1ms ≤ t ≤ 10ms
f ≥ 50Hz, duty ≤ 10%

Electrical Characteristics at Ta = 25°C

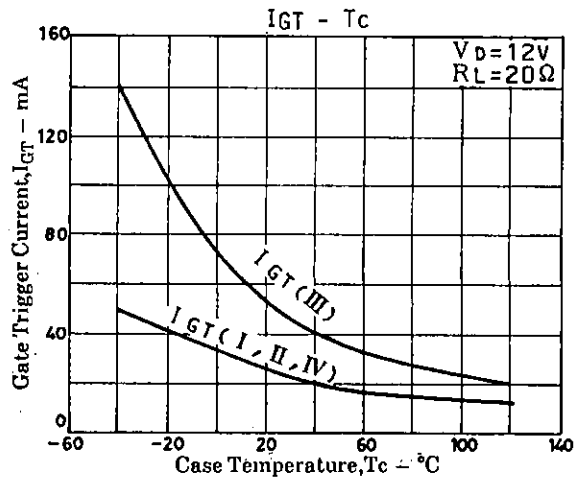
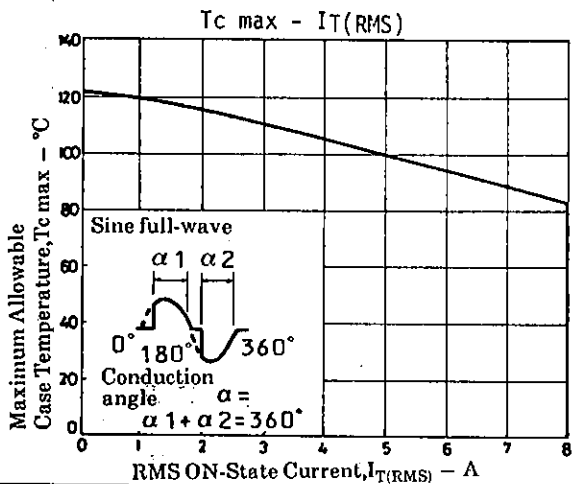
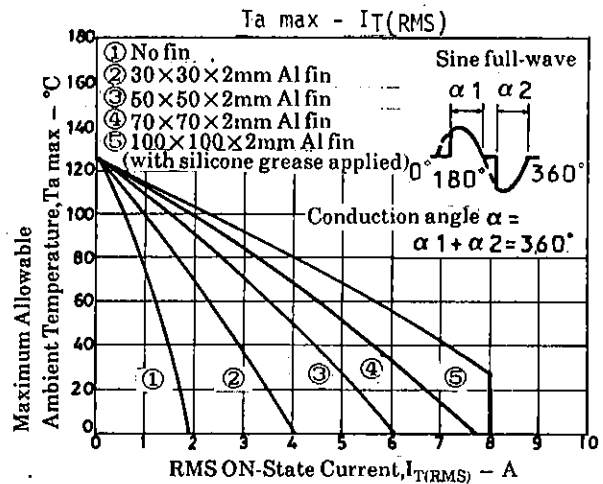
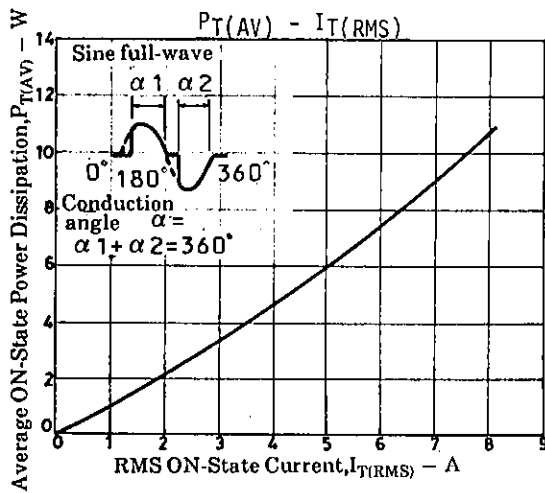
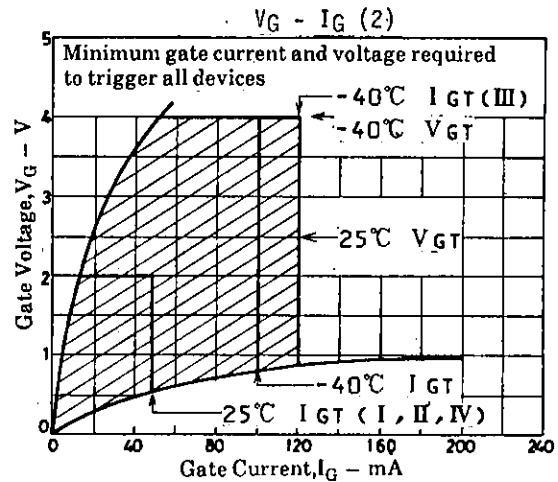
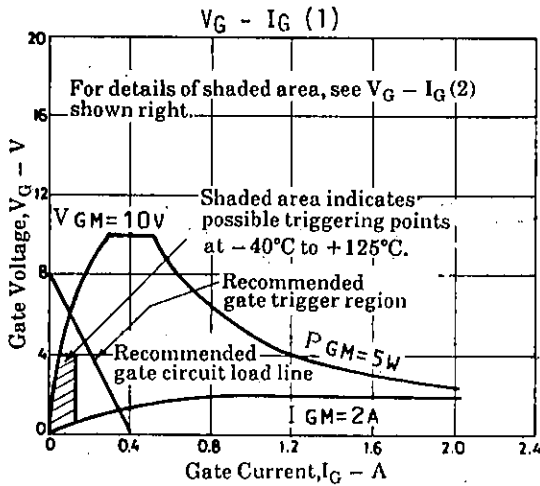
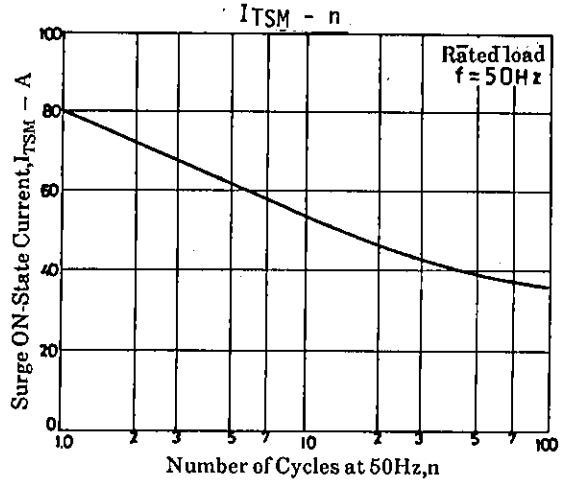
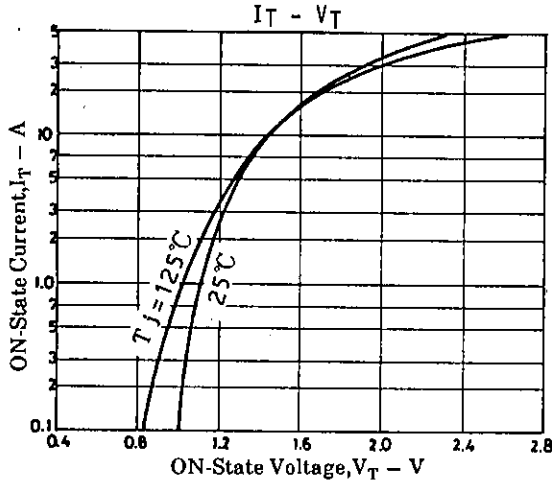
			min	typ	max	unit
Repetitive Peak OFF-State Current	I _{DRM}	T _j = 125°C, V _D = V _{DRM}			2	mA
Peak ON-State Voltage	V _{TM}	I _{TM} = 12A			1.5	V
Critical Rate of Rise of OFF-State Voltage	(dv/dt) _c	T _j = 125°C, V _D = 200V(C), 400V(E to G)	10			V/μs
Holding Current	I _H	R _L = 100Ω			50	mA
Gate Trigger Current※ (I)	I _{GT}	V _D = 12V, R _L = 20Ω			30	mA
	I _{GT}	V _D = 12V, R _L = 20Ω			30	mA
	I _{GT}	V _D = 12V, R _L = 20Ω			50	mA
	I _{GT}	V _D = 12V, R _L = 20Ω			30	mA
Gate Trigger Voltage※ (I)	V _{GT}	V _D = 12V, R _L = 20Ω			2	V
	V _{GT}	V _D = 12V, R _L = 20Ω			2	V
	V _{GT}	V _D = 12V, R _L = 20Ω			2	V
	V _{GT}	V _D = 12V, R _L = 20Ω			2	V
Gate Nontrigger Voltage	V _{GD}	T _c = 125°C, V _D = V _{DRM}	0.2			V
Thermal Resistance	R _{th(j-c)}	Between junction and case, AC			3.6	°C/W

※ : The gate trigger mode is shown below. **Package Dimensions 1144**
(unit: mm)

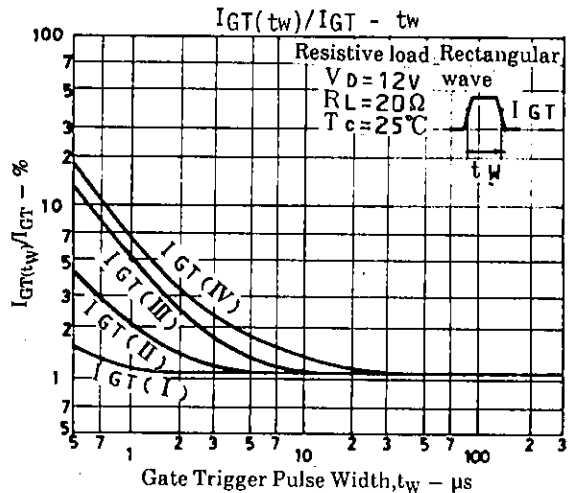
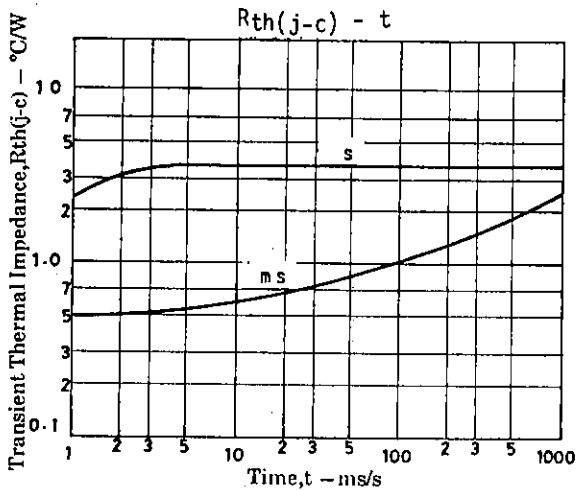
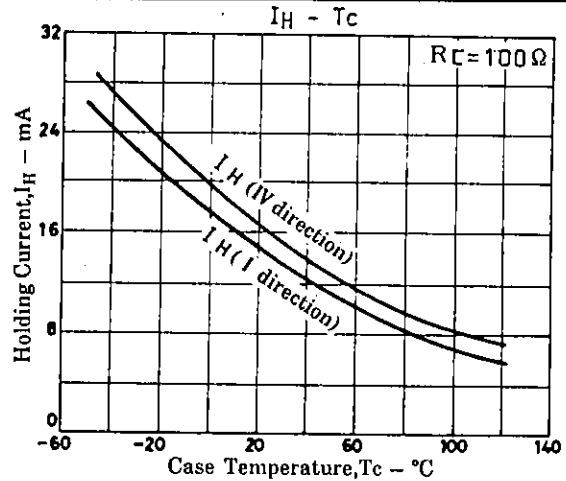
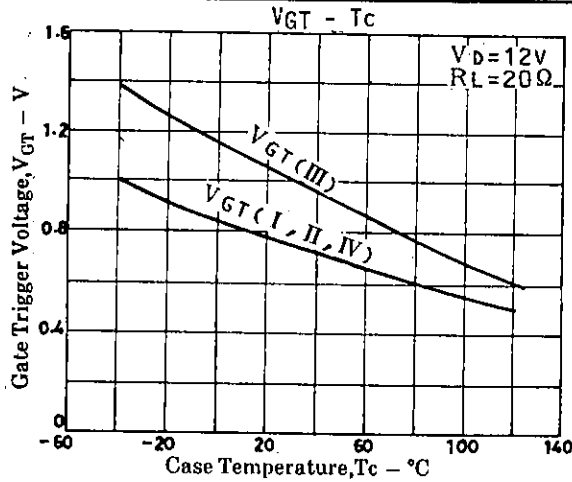
Trigger mode	T2	T1	G
I	+	-	+
II	+	-	-
III	-	+	+
IV	-	+	-



DTM8-N



DTM8-N



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