

SANYO	No.4731	DTN8 Silicon Diffused Junction Type
	8A Bidirectional Thyristor	

Features

- AC power control
- Peak OFF-state voltage : 400, 600V
- RMS ON-state current : 8A

Absolute Maximum Ratings at Ta = 25°C

		DTN8E	DTN8G	unit
Repetitive Peak OFF-State Voltage	V _{DRM}	400	600	V
RMS ON-State Current	I _{T(RMS)}	Single-phase full-wave, T _c = 83°C →		8 A
Surge ON-State Current	I _{TSM}	Peak 1 cycle, 50Hz →		80 A
Amperes Squared-Seconds	SI ² T·dt	1ms ≤ t ≤ 10ms →		32 A ² S
Critical Rate of Rise of ON-State Current	diT/dt	→		50 A/μs
Peak Gate Power Dissipation	P _{GM}	→		5 W
Average Gate Power Dissipation	P _{G(AV)}	→		0.5 W
Peak Gate Forward Current	I _{GM}	→		±2 A
Peak Gate Forward Voltage	V _{GM}	→		±10 V
Junction Temperature	T _j	→		125 °C
Storage Temperature	T _{stg}	→		-40 to +125 °C
Weight		→		1.7 g

Electrical Characteristics at Ta = 25°C

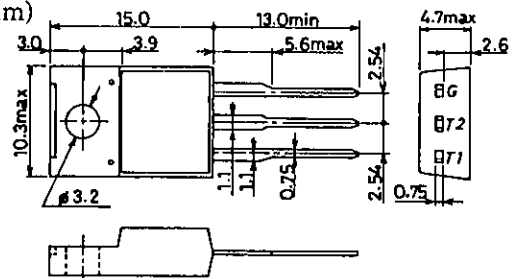
			min	typ	max	unit
Repetitive Peak ON-State Current	I _{DRM}	V _D = V _{DRM}			20	μA
Peak ON-State Voltage	V _{TM}	I _{TM} = 12A			1.5	V
Critical Rate of Rise of Commutating OFF-State Voltage	(dv/dt) _c	V _D = 400V, T _j = 125°C	4			V/μs
Holding Current	I _H	I _{TM} = 1A, V _D = 12V			50	mA
Gate Trigger Current * (I)	I _{GT}	V _D = 12V, R _L = 20Ω			20	mA
" (II)	I _{GT}	V _D = 12V, R _L = 20Ω			20	mA
" (III)	I _{GT}	V _D = 12V, R _L = 20Ω		30		mA
" (IV)	I _{GT}	V _D = 12V, R _L = 20Ω			20	mA
Gate Trigger Voltage * (I)	V _{GT}	V _D = 12V, R _L = 20Ω			1.5	V
" (II)	V _{GT}	V _D = 12V, R _L = 20Ω			1.5	V
" (III)	V _{GT}	V _D = 12V, R _L = 20Ω		1.0		V
" (IV)	V _{GT}	V _D = 12V, R _L = 20Ω			1.5	V
Gate Nontrigger Voltage	V _{GD}	T _c = 125°C, V _D = V _{DRM}	0.2			V
Thermal Resistance	R _{th(j-c)}	AC			3.6	°C/W

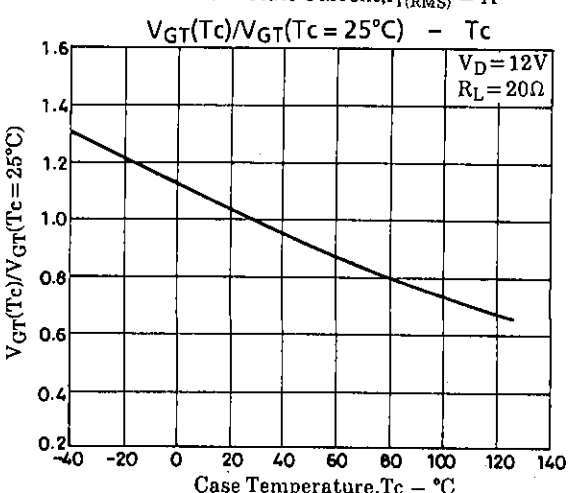
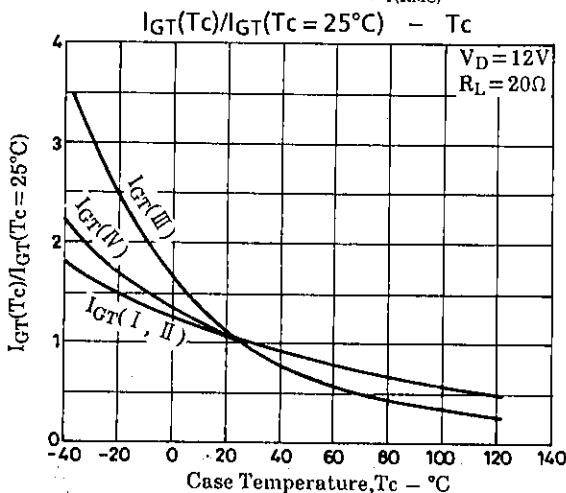
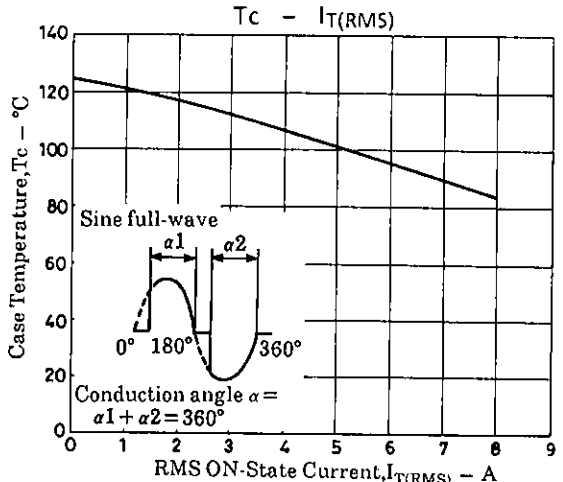
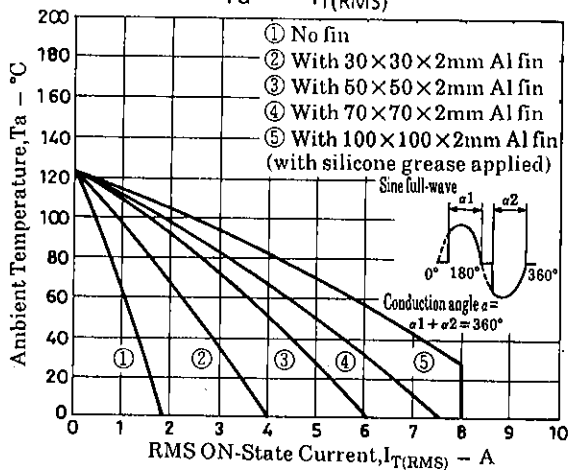
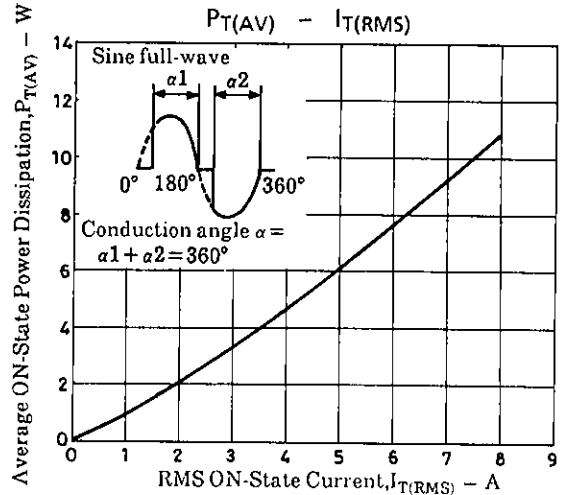
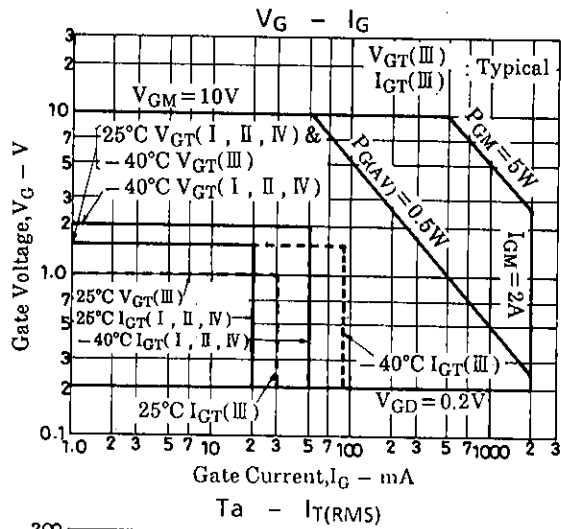
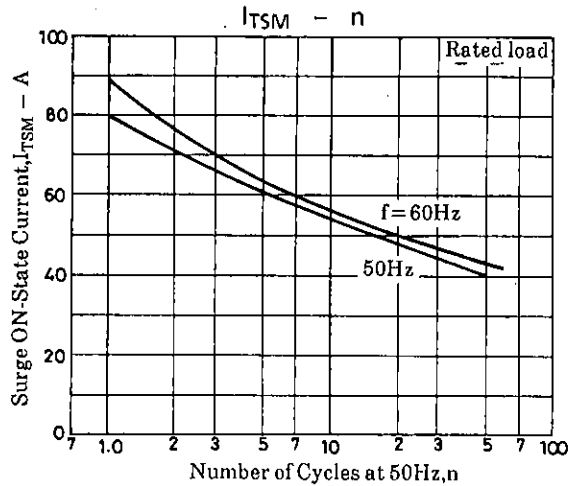
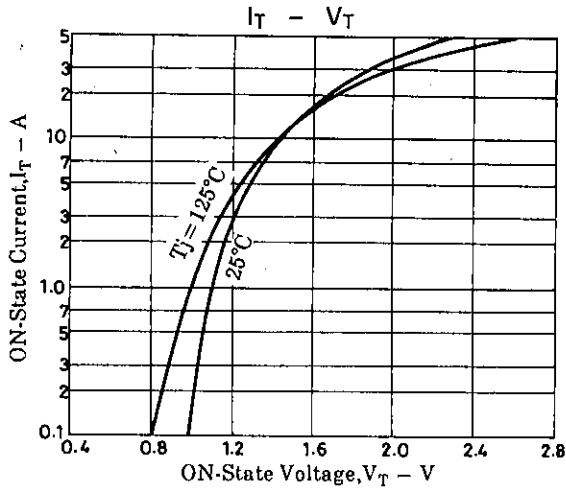
* : The gate trigger modes are shown below.

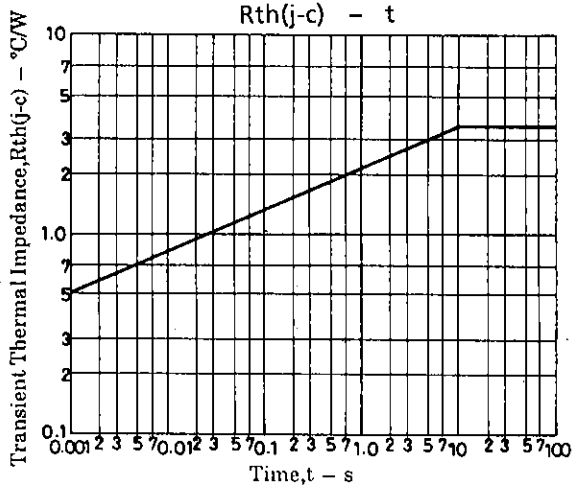
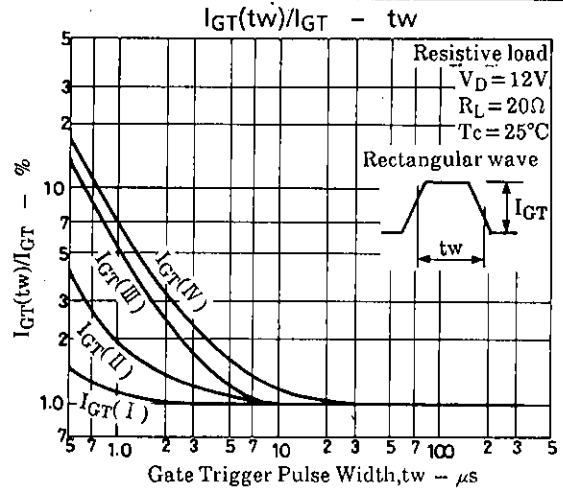
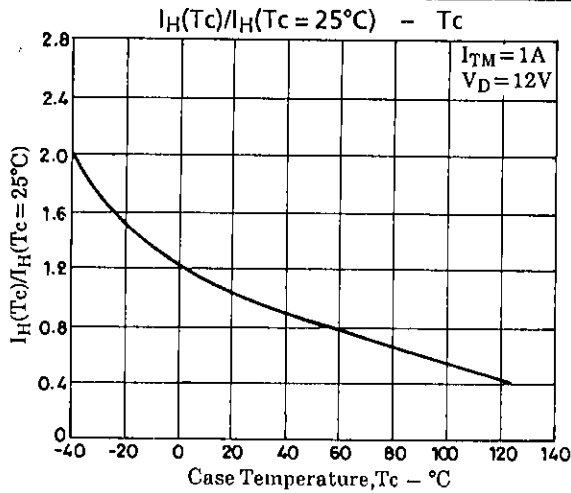
Trigger mode	T2	T1	G
I	+	-	+
II	+	-	-
III	-	+	+
IV	-	+	-

Package Dimensions 1263

(unit : mm)







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