

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, $T_c = 83^\circ C \rightarrow$		8 A
Surge ON-State Current	I_{TSM}	Peak 1 cycle, 50Hz \rightarrow		80 A
Amperes Squared-Seconds	$S_i^2 T \cdot dt$	$1ms \leq t \leq 10ms \rightarrow$		32 A ² S
Critical Rate of Rise of ON-State Current	di/dt	\rightarrow		50 A/ μ s
Peak Gate Power Dissipation	P_{GM}	\rightarrow		5 W
Average Gate Power Dissipation	$P_{G(AV)}$	\rightarrow		0.5 W
Peak Gate Forward Current	I_{GM}	\rightarrow		± 2 A
Peak Gate Forward Voltage	V_{GM}	\rightarrow		± 10 V
Junction Temperature	T_j	\rightarrow		125 °C
Storage Temperature	T_{stg}	\rightarrow		-40 to +125 °C
Weight		\rightarrow		1.7 g

Electrical Characteristics at Ta = 25°C

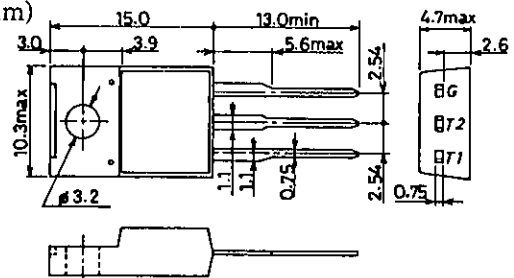
			min	typ	max	unit
Repetitive Peak ON-State Current	I_{DRM}	$V_D = V_{DRM}$			20	μ A
Peak ON-State Voltage	V_{TM}	$I_{TM} = 12A$			1.5	V
Critical Rate of Rise of Commutating OFF-State Voltage	$(dv/dt)_c$	$V_D = 400V, T_j = 125^\circ C$	4			V/ μ s
Holding Current	I_H	$I_{TM} = 1A, V_D = 12V$			50	mA
Gate Trigger Current * (I)	I_{GT}	$V_D = 12V, R_L = 20\Omega$			20	mA
" (II)	I_{GT}	$V_D = 12V, R_L = 20\Omega$			20	mA
" (III)	I_{GT}	$V_D = 12V, R_L = 20\Omega$		30		mA
" (IV)	I_{GT}	$V_D = 12V, R_L = 20\Omega$			20	mA
Gate Trigger Voltage * (I)	V_{GT}	$V_D = 12V, R_L = 20\Omega$			1.5	V
" (II)	V_{GT}	$V_D = 12V, R_L = 20\Omega$			1.5	V
" (III)	V_{GT}	$V_D = 12V, R_L = 20\Omega$		1.0		V
" (IV)	V_{GT}	$V_D = 12V, R_L = 20\Omega$			1.5	V
Gate Nontrigger Voltage	V_{GD}	$T_c = 125^\circ C, V_D = V_{DRM}$	0.2			V
Thermal Resistance	$R_{th(j-c)}$	AC			3.6	°C/W

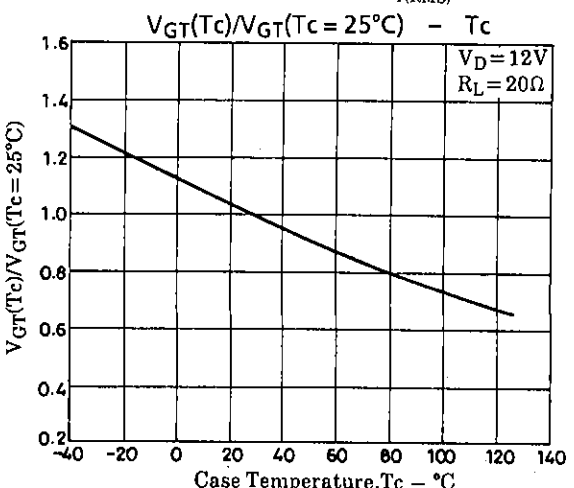
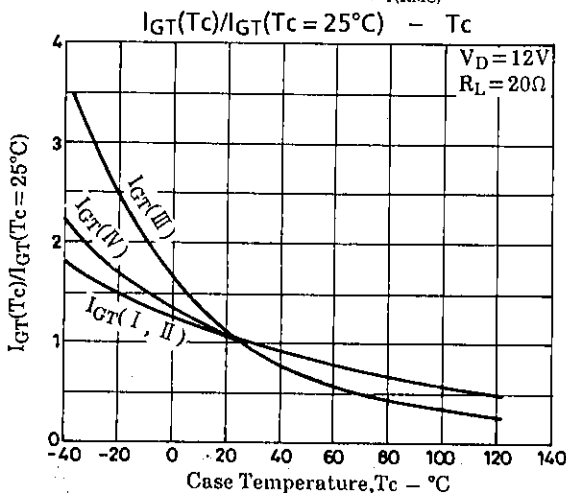
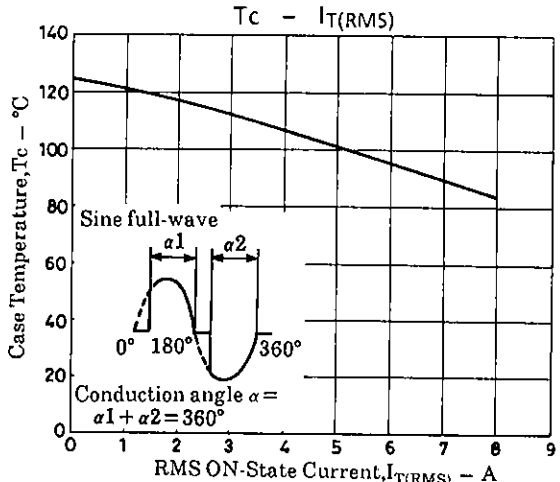
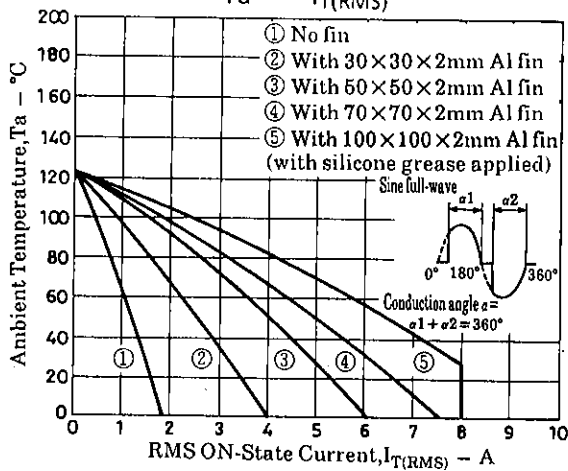
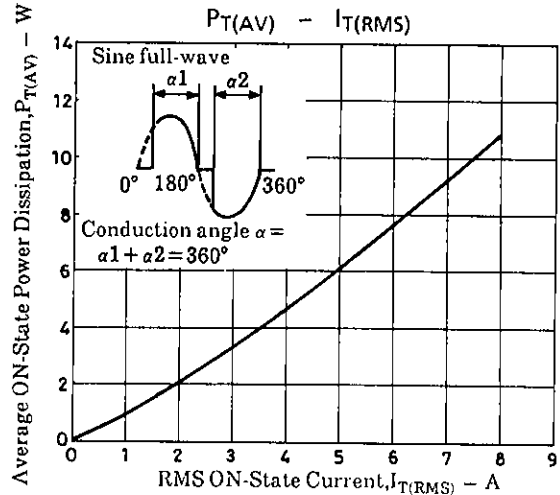
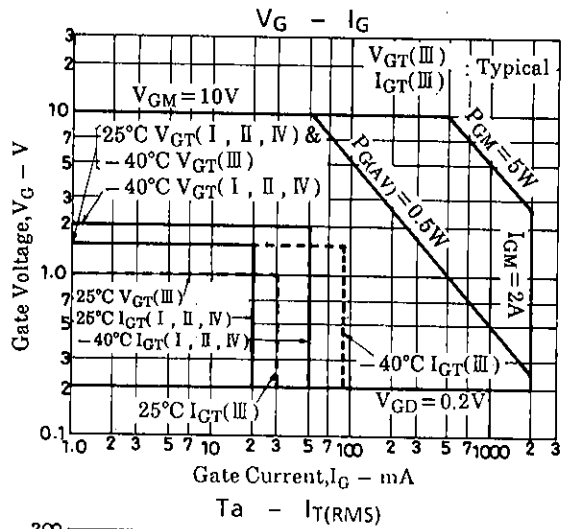
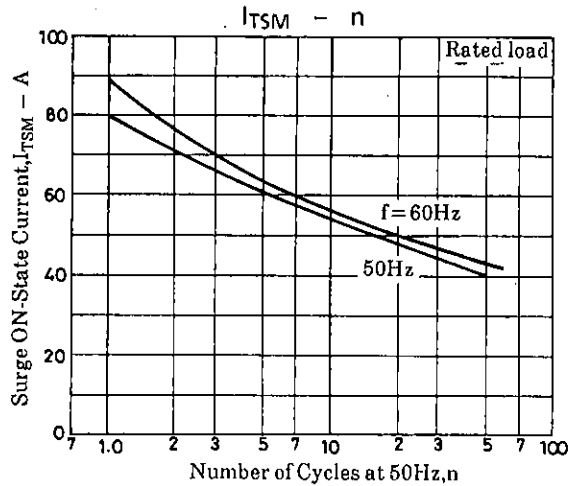
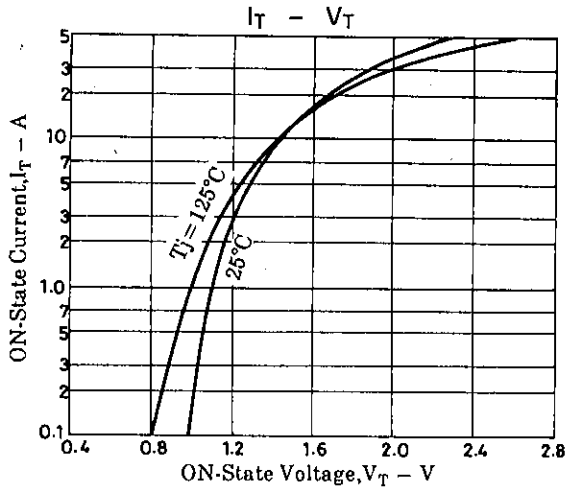
* : The gate trigger modes are shown below.

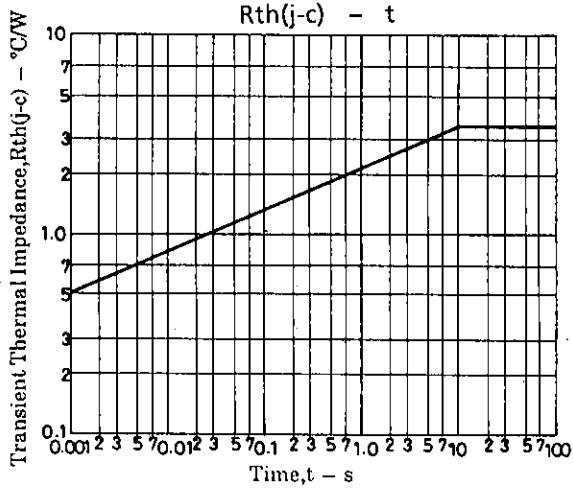
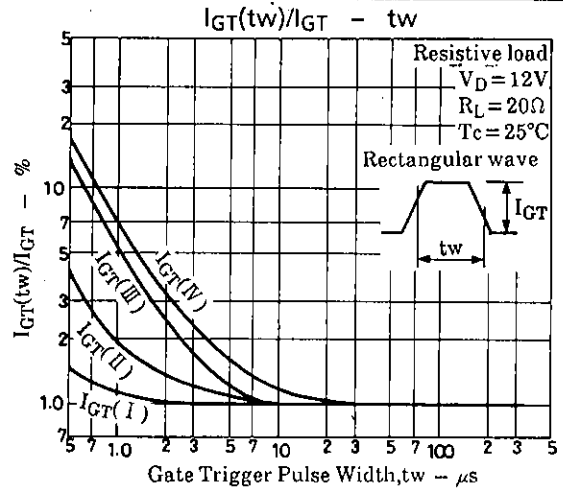
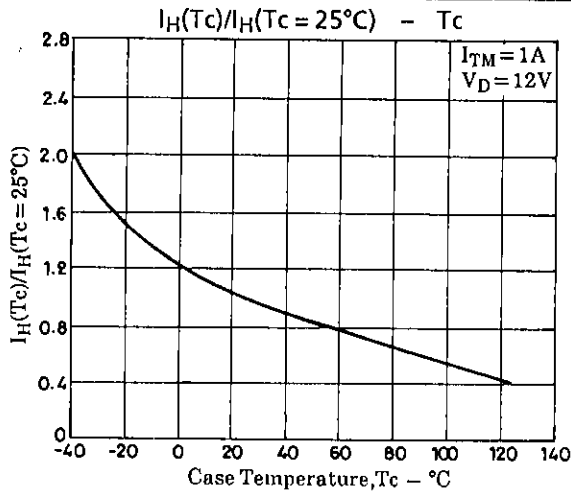
Trigger mode	T2	T1	G
I	+	-	+
II	+	-	-
III	-	+	+
IV	-	+	-

Package Dimensions 1263

(unit : mm)







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