



DTA1

1.0A Bidirectional Thyristor

Features

- Low AC power control use.
- Peak OFF-state voltage : 200 to 400V
- RMS ON-state current : 1A
- TO-92 package.

Absolute Maximum Ratings at Ta=25°C

			DTA1C	DTA1E	unit
Repetitive Peak OFF-State Voltage	V _{DRM}		200	400	V
RMS ON-State Current	I _{T(RMS)}	Tc=74°C, single-phase full-wave	→	1.0	A
Surge ON-State Current	I _{TSM}	Peak 1 cycle, 50Hz	→	8	A
Amperes Squared-Seconds	∫ i ² T·dt	1ms≤t≤10ms	→	0.32	A ² s
Peak Gate Power Dissipation	P _{GM}	f≥50Hz, duty≤10%	→	1	W
Average Gate Power Dissipation	P _{G(AV)}		→	0.1	W
Peak Gate Current	I _{GM}	f≥50Hz, duty≤10%	→	±0.5	A
Peak Gate Voltage	V _{GM}	f≥50Hz, duty≤10%	→	±6	V
Junction Temperature	T _j		→	125	°C
Storage Temperature	T _{stg}		→	-40 to +125	°C
Weight			→	0.2	g

Electrical Characteristics at Ta=25°C

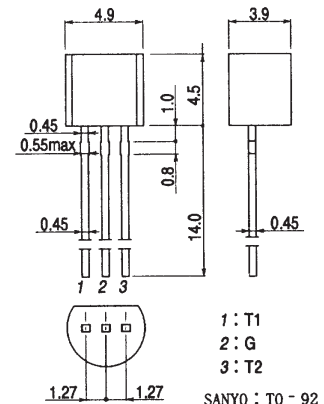
			min	typ	max	unit
Repetitive Peak OFF-State Current	I _{DRM}	T _j =25°C, V _D =V _{DRM}			10	μA
Peak ON-State Voltage	V _{TM}	I _{TM} =1.5A			1.5	V
Holding Current	I _H	V _D =12V, gate open			10	mA
Gate Trigger Current* (I)	I _{GT}	V _D =12V, R _L =20Ω			5	mA
	I _{GT}	V _D =12V, R _L =20Ω			5	mA
	I _{GT}	V _D =12V, R _L =20Ω		10		mA
	I _{GT}	V _D =12V, R _L =20Ω			5	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}	Tc=125°C, V _D =V _{DRM}	0.2		-	V
Thermal Resistance	R _{th(j-c)}	Between junction and case, AC			40	°C/W

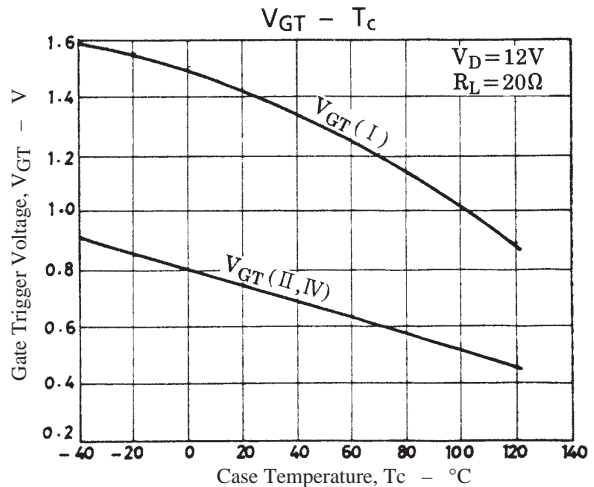
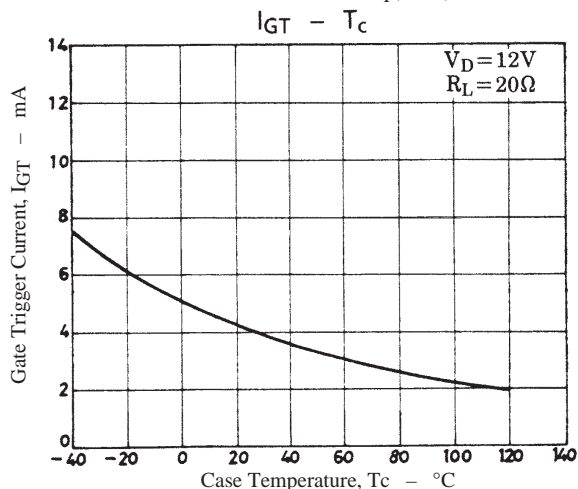
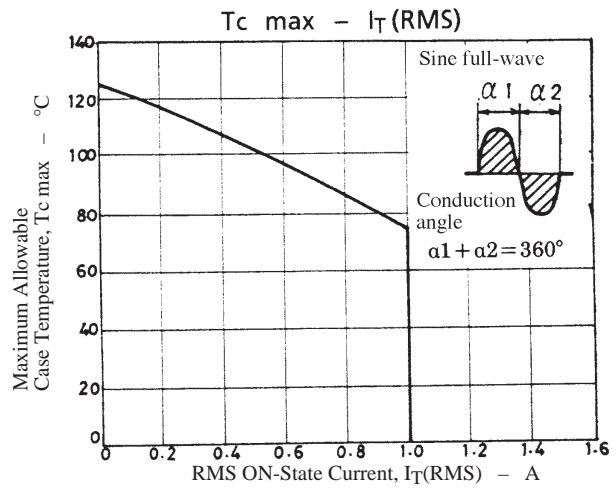
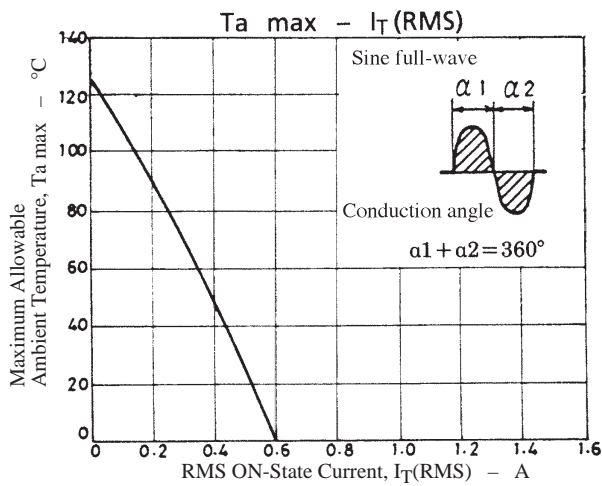
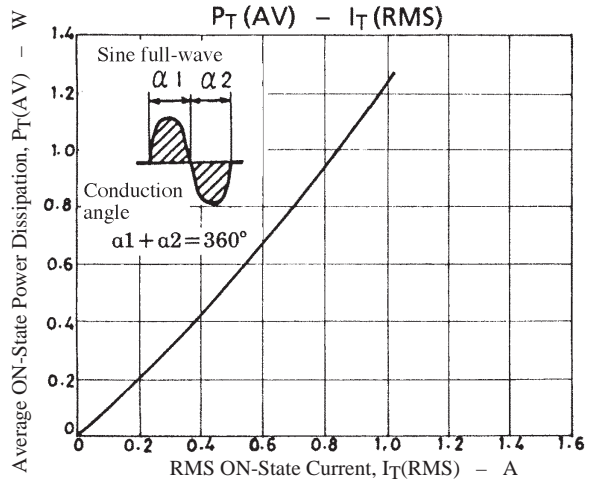
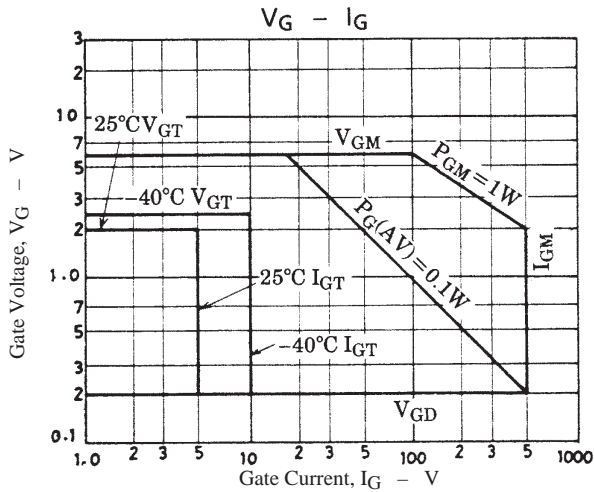
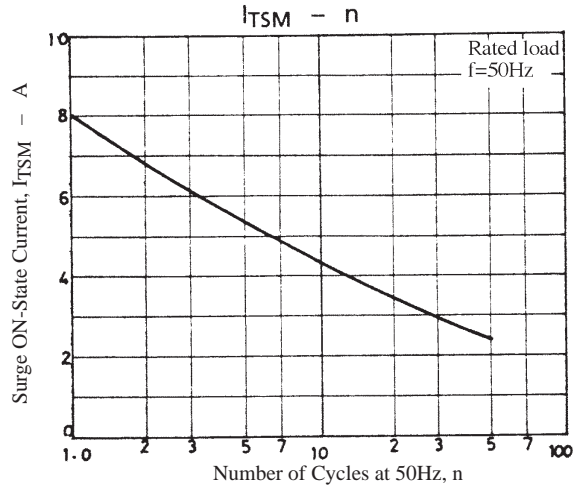
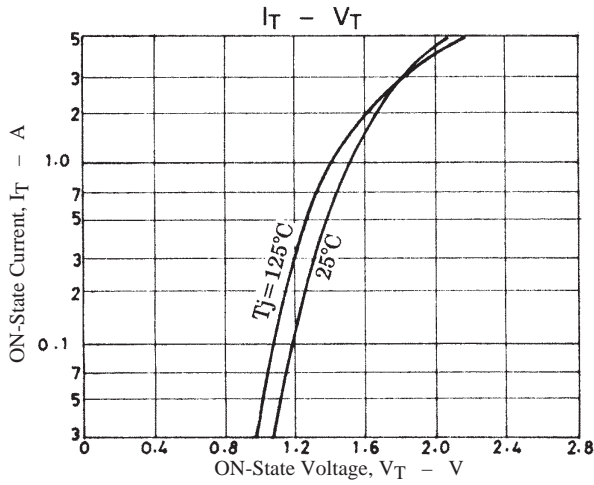
* : The gate trigger mode is shown below.

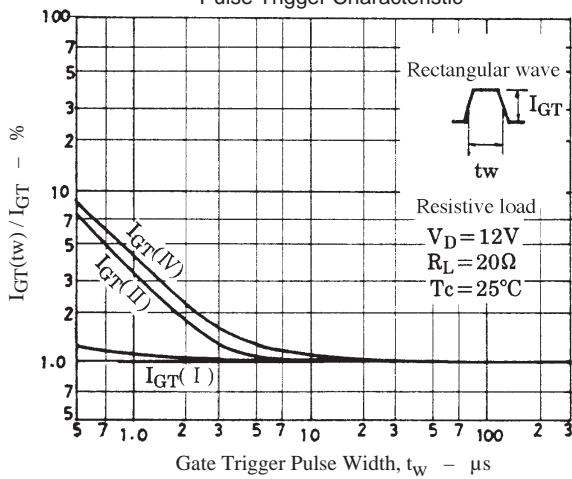
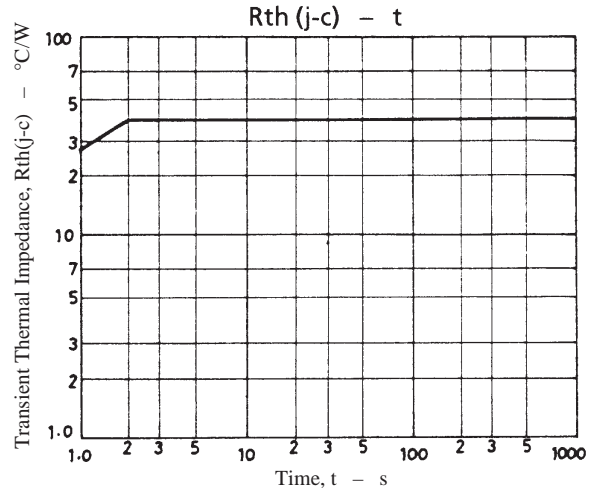
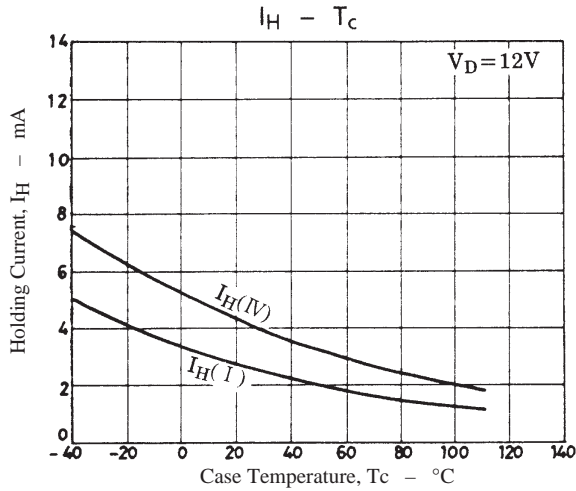
Trigger mode	T2	T1	G
I	+	-	+
II	+	-	-
III	-	+	+
IV	-	+	-

Package Dimensions 1192B

(unit : mm)







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