Ordering number : EN2303A

SANYO No.2303A

DTM10-N

Silicon Planar Type

10A Bidirectional Thyristor

Features

- Insulation type
- Peak OFF-state voltage : 200 to 600V
- RMS ON-state current : 10A
- TO-220 package

Absolute Maximum Ratings at Ta = 25°C

			DTM10C-N	DTM10E-N	DTM10G-N	unit
Repetitive Peak OFF-State Voltage	V_{DRM}		200	400	600	V
RMS ON-State Current	$I_{T(RMS)}$	Tc = 83°C, single-phase full-wave	→	→	10	A
Surge ON-State Current	I_{TSM}	Peak 1 cycle, 50Hz	→	→	100	A
Amperes Squared-Seconds	$\int i^2T \cdot dt$	1ms ≦ t ≦ 10ms	→	→	32	A^2s
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	Tj		→	→	125	°C
Storage Temperature	Tstg		→	−40 to +125		°C
Weight			→	→	1.8	g

Electrical Characteristics at Ta = 25°C

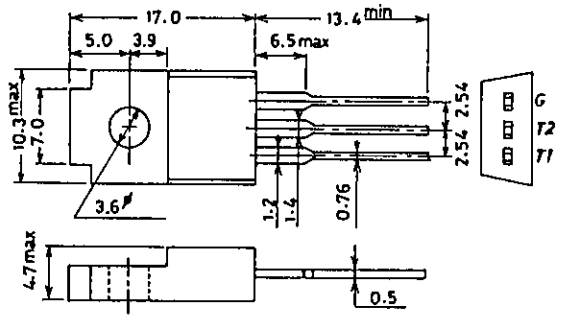
			min	typ	max	unit
Repetitive Peak OFF-State Current	I_{DRM}	Tj = 125°C, $V_D = V_{DRM}$			2	mA
Peak ON-State Voltage	V_{TM}	I_{TM} = 17A			1.5	V
Critical Rate of Rise of OFF-State Voltage	(dv/dt)c	Tj = 125°C, V_D = 200V (C), 400V(E to G)	10			V/μs
Holding Current	I_H	R_L = 100Ω			50	mA

Continued on next page.

※ : The gate trigger mode is shown below.

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

Package Dimensions 1144
(unit: mm)



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				min	typ	max	unit
Gate Trigger Current	(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)	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			3.0	°C/W