

SANYO**DTA08E**

Silicon Planar Type

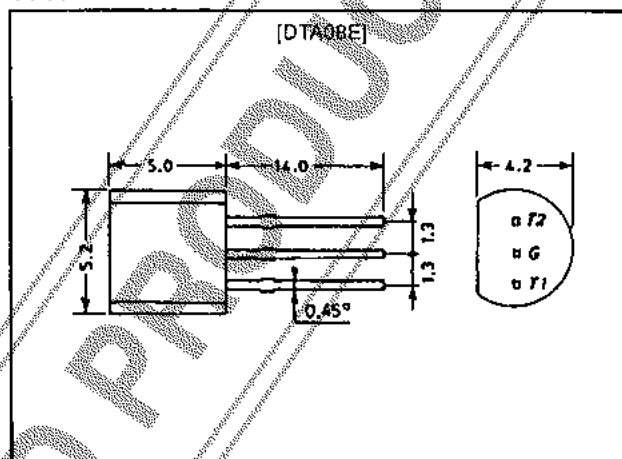
0.8A Bidirectional Thyristor**Features**

- Low AC power control.
- Peak OFF-state voltage : 400V.
- RMS ON-state current : 0.8A.
- TO-92 package.

Package Dimensions

unit:mm

1141



*:The gate trigger mode is shown below.

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

SpecificationsAbsolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Rating	Unit
Repetitive Peak OFF-State Voltage	V_{DRM}		400	V
RMS ON-State Current	$I_T(RMS)$	$T_a = 60^\circ\text{C}$, single-phase full-wave	0.8	A
Surge ON-State Current	I_{TSM}	Peak, 1 cycle, 50Hz	7	A
Ampere Squared-Seconds	I^2t	$t_{ms} \leq 10ms$	0.2	A ² s
Peak Gate Power Dissipation	P_{GM}	$f = 50Hz$, duty $\leq 10\%$	1	W
Average Gate Power Dissipation	$P_G(AV)$		0.1	W
Peak Gate Current	I_{GM}	$f = 50Hz$, duty $\leq 10\%$	± 1	A
Junction Temperature	T_j		125	$^\circ\text{C}$
Storage Temperature	T_{stg}		-40 to +125	$^\circ\text{C}$
Weight			0.3	g

Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Rating			Unit
			min	typ	max	
Repetitive Peak OFF-State Current	I_{DRM}	$T_j = 125^\circ\text{C}$, $V_D = V_{DRM}$			0.1	mA
ON-State Voltage	V_T	$I_T = 1.2A$			1.5	V
Critical Rate of Rise of OFF-State Voltage	$(dv/dt)_c$	$T_j = 125^\circ\text{C}$, $V_D = V_{DRM}$	1			V/ μs
Holding Current	I_H	$V_D = 24V$		5	10	mA
Gate Trigger Current* (I)	I_{GT}	$V_D = 12V$, $R_L = 100\Omega$			5	mA
Gate Trigger Current* (II)	I_{GT}	$V_D = 12V$, $R_L = 100\Omega$			10	mA
Gate Trigger Current* (III)	I_{GT}	$V_D = 12V$, $R_L = 100\Omega$			10	mA
Gate Trigger Current* (IV)	I_{GT}	$V_D = 12V$, $R_L = 100\Omega$			5	mA
Gate Trigger Voltage* (I)	V_{GT}	$V_D = 12V$, $R_L = 100\Omega$			1	V
Gate Trigger Voltage* (II)	V_{GT}	$V_D = 12V$, $R_L = 100\Omega$			1.5	V
Gate Trigger Voltage* (III)	V_{GT}	$V_D = 12V$, $R_L = 100\Omega$			1.5	V
Gate Trigger Voltage* (IV)	V_{GT}	$V_D = 12V$, $R_L = 100\Omega$			1	V
Gate Nontrigger Voltage	V_{GO}	$T_j = 125^\circ\text{C}$, $V_D = 1/2 V_{DRM}$	0.1			V
Thermal Resistance	$R_{th(j-a)}$	Between junction and case, AC			75	$^\circ\text{C/W}$

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