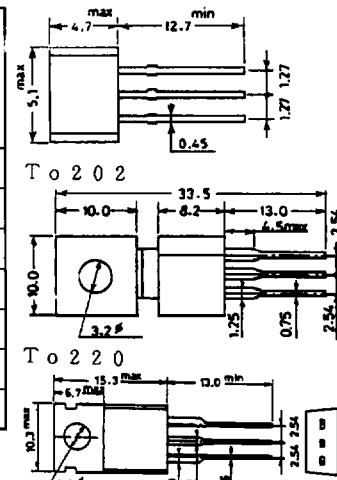


## Quick Guide To Thyristors, TRIACs and DIACs

### THYRISTORS

IT (AV) (A)	Type No.	Outline	Absolute Maximum Ratings/Ta=25°C				Electrical Characteristics/Ta=25°C								*Rth(j-a)		
			V <sub>RSM</sub> (V)	V <sub>RRM</sub> (V)	I <sub>TSM</sub> (A)	PGM (W)	V <sub>D</sub> (V)	I <sub>GT</sub> max (mA)	V <sub>GT</sub> max (V)	V <sub>GD</sub> min (V)	I <sub>T</sub> (A)	V <sub>T</sub> max (V)	typ I <sub>H</sub> (mA)	R <sub>th</sub> (j-c) (°C/W)		* RGK (Ω)	
0.1	DRA01	To92	150	100	4	0.1	6	0.2	0.8	0.2	1	2.5	3	* 250	1k		
0.3	DRA03T		9	0.1	2	2					4	* 250	1k				
2	DRA2T	To202	150	100	20	0.1					10	2	3	12	1k		
3	DRE3				60	0.5					12	1.6	4	6	330		
	DRD3	To220	700	600	60	5					15	1.5	12	1.6	60	3.2	-
5	DRA5				80	5					15	1.6	60	3.0	-		
8	DRA8				120	5					40	1.5	25	1.6	60	3.0	-

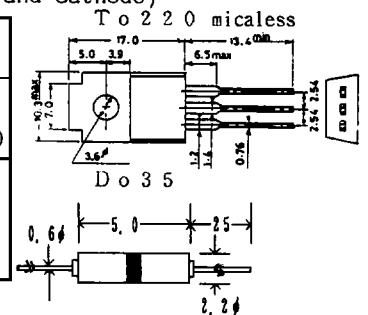
\*Outline (unit:mm)  
To 9 2



\*Note: Connect a resistor of less than RGK in the remarks between a gate and a cathode when an average on current are 0.1-3A.

### THYRISTOR WITH RESISTOR (Built-in resistor between gate and cathode)

RGK Typ (A)	IT (AV) (A)	Type No.	Outline	Absolute Maximum Ratings/Ta=25°C				Electrical Characteristics/Ta=25°C						
				V <sub>RSM</sub> (V)	V <sub>RRM</sub> (V)	I <sub>TSM</sub> (A)	PGM (W)	V <sub>D</sub> (V)	I <sub>GT</sub> max (mA)	V <sub>GT</sub> max (V)	I <sub>T</sub> (A)	V <sub>T</sub> max (V)	I <sub>H</sub> max (mA)	R <sub>th</sub> (j-c) max (°C/W)
1		DRA05E-1	To92	500	400	9	0.1	6	1	0.8	1	1.5	6	180
2.7	0.5	DRA05E-2							0.4				3	
5.1		DRA05E-5							0.25				2	



### TRIACs

IT (RMS) (A)	Type No.	Outline	Absolute Maximum Ratings/Ta=25°C				Electrical Characteristics/Ta=25°C												*Rth(j-a)														
			V <sub>DRM</sub> (V)	I <sub>TSM</sub> (A)	PGM (W)	I <sub>GT</sub> max (mA)				V <sub>GT</sub> max (V)				I <sub>T</sub> (A)	V <sub>T</sub> max (V)	I <sub>H</sub> max (mA)	V <sub>GD</sub> min (V)	R <sub>th</sub> (j-c) (°C/W)															
						V <sub>D</sub> (V)	I	II	III	IV	V <sub>D</sub> (V)	I	II							III	IV												
0.5	DTA05	To92	400	6	1	12	15	15	-	15	12	2.3	2.3	-	2.3	2	2	25	0.2	*250													
1	DTA1			8	1																5	5	10	5	2	2	-	2	1.5	1.5	10	0.2	40
2	DTA2	To202	600	12	3	12	15	15	-	15	12	2.3	2.3	-	2.3	6	2.6	25	0.2	12													
3	DTB3			27	3																30	30	-	30	2	2	-	2	4.5	1.5	25	0.2	10
6	DTA6-N	To220	200	60	5	12	30	30	50	30	12	2	2	2	2	9	1.5	50	0.2	2.5													
	*DTM6-N			60	5																30	30	50	30	2	2	2	2	1.5	50	0.2	3.8	
8	DTC8-N			80	5																30	30	50	30	2	2	2	2	12	1.5	50	0.2	2.0
	*DTM8-N			80	5																30	30	50	30	2	2	2	2	1.5	50	0.2	3.6	
10	DTC10-N			80	5																30	30	50	30	2	2	2	2	17	1.5	50	0.2	1.8
	*DTM10-N			80	5																30	30	50	30	2	2	2	2					
12	DTC12-N	120	5	30	30	50	30	2	2	2	2	17	1.5	50	0.2	1.8																	
	*DTM12-N	120	5	30	30	50	30	2	2	2	2						1.5	50	0.2	3.0													

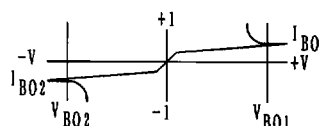
### DIACs

Current Rating (A)	Type No.	Outline	Electrical Characteristics/Ta=25°C				
			V <sub>B01</sub> (V <sub>B02</sub> ) (V)	I <sub>B01</sub> (I <sub>B02</sub> ) (μA)	Temperature coefficient(%/°C)	V <sub>P</sub> (V)	V <sub>B01</sub>  - V <sub>B02</sub>   (V)
± 2	BTD4M	Do35	29 ~ 37	max 50	typ 0.1	min 5	max 3.0

Gate trigger mode of TRIACs

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

Fundamental Characteristics of a DIAC



These specifications are subject to change without notice.