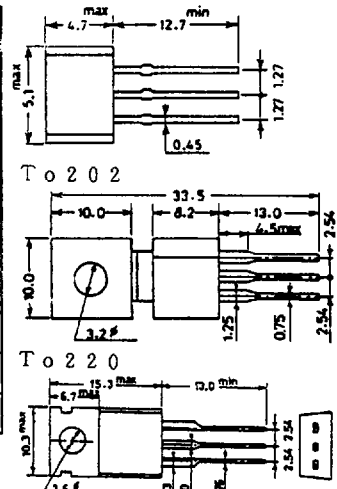


## Quick Guide To Thyristors, TRIACs and DIACs

### THYRISTORS

\*Outline (unit:mm)  
To 9 2

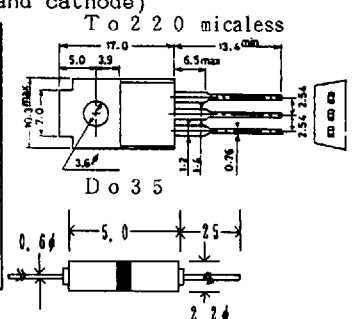
IT (AV)	Type No.	Outline	Absolute Maximum Ratings/Ta=25°C				Electrical Characteristics/Ta=25°C								*Rth(j-a)			
			V <sub>RSM</sub> (V)	V <sub>RRM</sub> (V)	I <sub>TSM</sub> (A)	PGM (W)	V <sub>D</sub> (V)	I <sub>GT</sub> max (mA)	V <sub>GT</sub> max (V)	V <sub>GD</sub> min (V)	I <sub>T</sub> (A)	V <sub>T</sub> max (V)	I <sub>H</sub> typ (mA)	R <sub>th(j-c)</sub> (°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	60	5	15	1.5	12					1.6	60	3.2	-				
5	DRA5	To220	700	600	80	5					40	1.5	15	1.6	60	3.0	-	-
8	DRA8																	



\*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(j-c)</sub> max (°C/W)					
1	0.5	DRA05E-1	To92	500	400	9	0.1	6	1	0.8	1	1.5	3	180					
2.7		DRA05E-2													0.4	0.8	1	1.5	3
5.1		DRA05E-5													0.25	0.8	1	1.5	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>D</sub> (V)	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(j-c)</sub> (°C/W)
						I	II	III	IV		I	II	III	IV						
0.5	DTA05	To92	400	6	1	15	15	-	15	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
2	DTA2	To202	600	12	3	15	15	-	15	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
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	To220	600	80	5	12	30	30	50	30	12	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	To220	600	80	5	12	30	30	50	30	12	2	2	2	2	17	1.5	50	0.2	1.8
	*DTM10-N			80	5		30	30	50	30		2	2	2	2		1.5	50	0.2	3.0
12	DTC12-N	To220	600	120	5	12	30	30	50	30	12	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

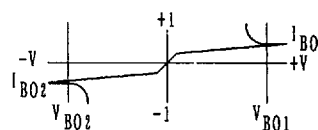
### DIACs

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.