

Hirect Pressure Contact Power Blocks are designed for use in various types of motor control and other high power applications. It combines multiple semi conductor devices in a single, electrically isolated package. A wide variety of Power Blocks are available in Thyristor-Thyristor, Thyristor-Diode and Diode-Diode configurations.

FEATURES :

Compact Design

Isolated Base Plate (2.5 kV AC)

Insulated Package

ORDERING :

H	TT	251	N	1200	K	O	F
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DV/DT :-
B-50V/ μ S
C-400V/ μ S
F-1000V/ μ S

TURN OFF TIME :
C : 12 μ S
D : 15 μ S
S : 18 μ S
E : 20 μ S
F : 25 μ S
O : NOT SPECIFIED

POWER BLOCK DESIGN

VOLTAGE RATING

TYPE
N : PHASE CONTROL THYRISTOR/
RECTIFIER DIODE
F : FAST TURN OFF THYRISTOR
S : FAST RECOVERY DIODE

AVERAGE CURRENT RATING AT
85°C CASE TEMPERATURE

EQUIVALENT CIRCUITS :
TT-THYRISTOR-THYRISTOR
TD-THYRISTOR-DIODE
DT-DIODE-THYRISTOR
DD-DIODE-DIODE

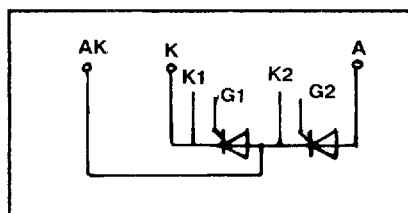
HIRECT

ISOLATED BASE POWER BLOCKS (PHASE CONTROL TYPES)

TYPE	V_{DRM}/V_{RRM} V	I_{TRMS} A	I_{TSM} 10ms T_J max A	I^2_t 10 ms. T_J max A^2S	$I_{T(av)}/T_C$ $A/^\circ C$	V_o V	r mohm	di/dt $A/\mu S$	T_q μS	Fit C
HTT32N / HTD32N HDT32N	1200-1600	75	620	1920	48/52 32/85	1	7.5	120	120	0
HTT45N / HTD45N HDT45N	800-1600	100	1000	5000	63/59 45/85	0.85	4.7	150	120	0
HTT60N / HTD60N HDT60N	400-1600	120	1400	9800	76/68 60/85	0.8	3.4	150	120	0
HTT75N / HTD75N HDT75N	400-1400	150	1700	14400	95/70 75/85	0.85	2.6	150	180	0
HTT95N / HTD95N HDT95N	400-1500	150	1700	14400	95/85	0.85	2.6	150	200	0
HTT121N/HTD121N HDT121N	1100-1800	200	2350	27600	128/81 121/85	0.85	2	150	180	0
HTT131N/HTD131N HDT131N	400-1400	220	3200	51200	140/81 131/85	0.85	1.5	150	180	0
HTT142N/HTD142N HDT142N	200-1400	230	4100	84000	142/85	0.9	1.1	150	200	0
HTT150N/HTD150N HDT150N	1800-2600	350	4000	80000	223/54 150/85	1.2	2.3	60	300	0
HTT162N/HTD162N HDT162N	200-1400	260	4400	97000	162/85	0.85	0.95	150	200	0
HTT170N/HTD170N HDT170N	400-1600	350	4600	106000	223/68 170/85	0.95	1	150	250	0
HTT210N/HTD210N HDT210N	400-1800	410	5800	168000	261/73 210/85	1	0.85	150	200	0
HTT250N/HTD250N HDT250N	400-1800	410	7000	245000	261/82 250/85	0.8	0.7	150	250	0
HTT251N/HTD251N HDT251N	400-1400	410	8000	320000	261/82 250/85	0.8	0.7	250	250	0
HTT265N/HTD265N HDT265N	200-700	450	5500	151000	286/79 265/85	0.8	0.65	200	200	0

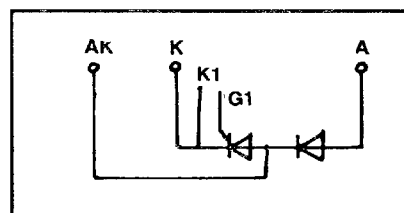
ISOLATED BASE POWER BLOCKS (FAST TURN OFF TYPES)

HTT35F / HTD35F HDT35F	200-1200	100	1000	5000	63/38 35/85	1.35	5	120	15-25	0
HTT45F / HTD45F HDT45F	200-1200	120	1150	6600	76/48 45/85	1.3	3.4	120	15-25	0
HTT71F / HTD71F HDT71F	200-1400	180	2100	22000	115/50 71/85	1.3	3.1	160	20-25	0
HTT81F / HTD81F HDT81F	200-1000	180	2200	24200	115/62 81/85	1.25	2	160	12-20	0
HTT101F/HTD101F HDT101F	200-1400	200	2400	28800	128/70 101/85	1.2	2.1	160	20-25	0
HTT111F/HTD111F HDT111F	200-1000	200	2600	33800	128/76 111/85	1.2	1.4	200	12-20	0
HTT180F/HTD180F HDT180F	200-1300	350	6000	180000	223/73 180/85	1.3	0.9	200	18-25	0
HTT200F/HTD200F HDT200F	200-1100	410	6400	205000	261/68 200/85	1.2	0.75	200	18-25	0



TT

TD



Equivalent Circuit

Destroying the case is hazardous to health.

In the interest of product improvement Hirect reserve the right to change specifications at any time without notice.

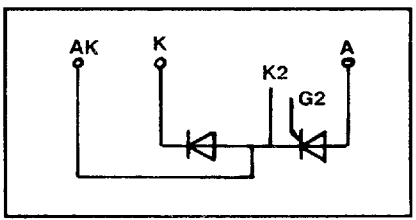
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$\frac{I_{SIN}}{W}$	Rth(c-h) °C/W	I _{GT} /V _{GT} mA/V	V _{FGM} V	I _{FGM} A	P _{GM} W	I _L mA	I _D /I _R mA	T _J max °C	Wt gm	Torque NM	Fig	Equivalent circuit
3	0.16	120/1.4	10	28	70**	620	15	125	200	4	1	TT/ TD / DT
65	0.16	120/1.4	12	50	150**	620	20	125	200	4	1	TT/ TD / DT
52	0.16	120/1.4	12	50	150**	620	20	125	200	4	1	TT/ TD / DT
39	0.1	120/1.4	12	50	150**	620	25	125	200	4	1	TT/ TD / DT
39	0.1	120/1.4	12	60	150**	620	30	140	200	4	1	TT/ TD / DT
23	0.06	150/1.4	12	50	150**	620	25	125	430	6	2	TT/ TD / DT
23	0.06	150/1.4	12	50	150**	620	25	125	430	6	2	TT/ TD / DT
22	0.06	150/1.4	11	42	150**	620	30	125	500	6	2	TT/ TD / DT
13	0.04	200/2	12	50	150**	1200	50	125	800	6	3	TT/ TD / DT
20	0.06	150/1.4	11	42	150**	620	30	125	500	6	2	TT/ TD / DT
17	0.04	200/2	12	50	150**	1200	50	125	800	6/12	3	TT/ TD / DT
13	0.04	200/2	12	50	150**	1200	50	125	800	6/12	3	TT/ TD / DT
13	0.04	200/2	12	50	150**	1200	50	125	800	6/12	3	TT/ TD / DT
13	0.04	200/2	12	50	150**	1200	50	125	800	6/12	3	TT/ TD / DT
17	0.04	150/1.4	12	42	150**	620	30	140	800	6/12	3	TT/ TD / DT

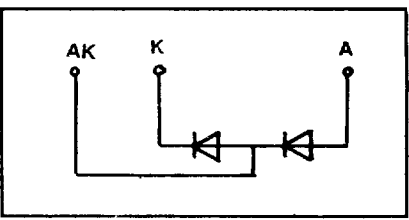
72	0.10	150/1.4	12	50	150**	1000	25	125	200	4	1	TT/ TD / DT
52	0.16	150/1.4	12	50	150**	1000	25	125	200	4	1	TT/ TD / DT
3	0.06	150/2	11	12	60	1000	30	125	430	6	2	TT/ TD / DT
3	0.06	150/2	11	12	60	1000	30	125	430	6	2	TT/ TD / DT
25	0.06	150/2	11	12	60	1000	30	125	430	6	2	TT/ TD / DT
23	0.06	150/2	10.5	12	60	1000	30	125	430	6	2	TT/ TD / DT
13	0.04	250/2.2	11	12	60	1000	50	125	800	6/12	3	TT/ TD / DT
13	0.04	250/2.2	11	12	60	1000	50	125	800	6/12	3	TT/ TD / DT

** 100 μ Sec pulse width

its



DT



DD

Note : Isolated base POWER BLOCKS in Diode-Diode configurations of various current ratings are also available.

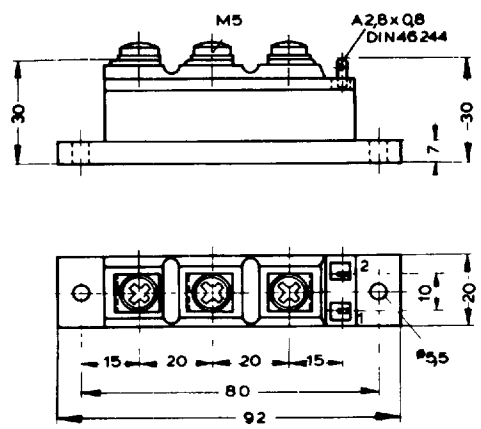


Figure No. 1

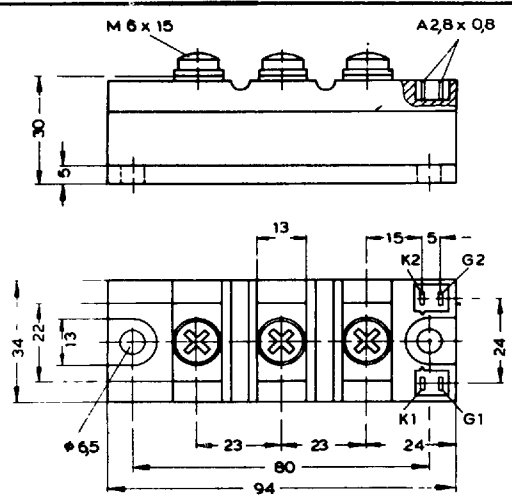


Figure No. 2

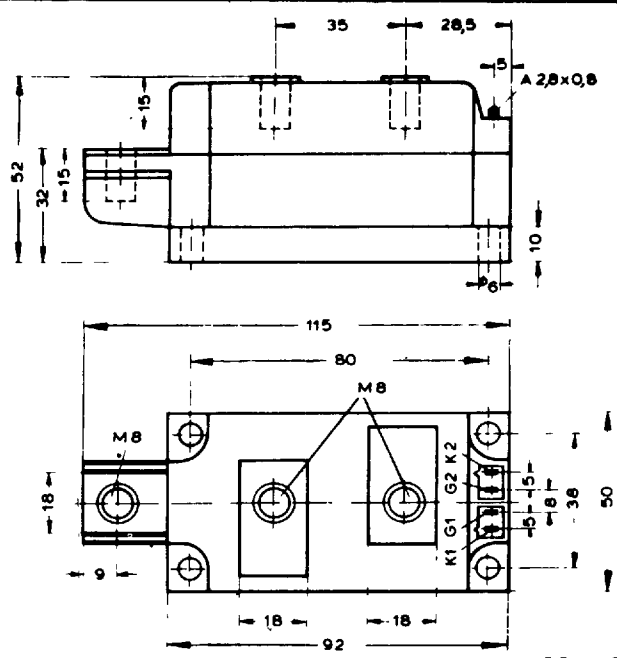


Figure No. 3