

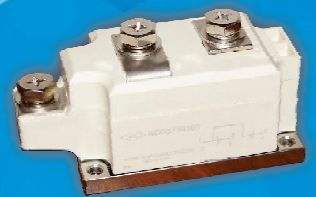


NAINA SEMICONDUCTOR LTD.



POWER MODULES

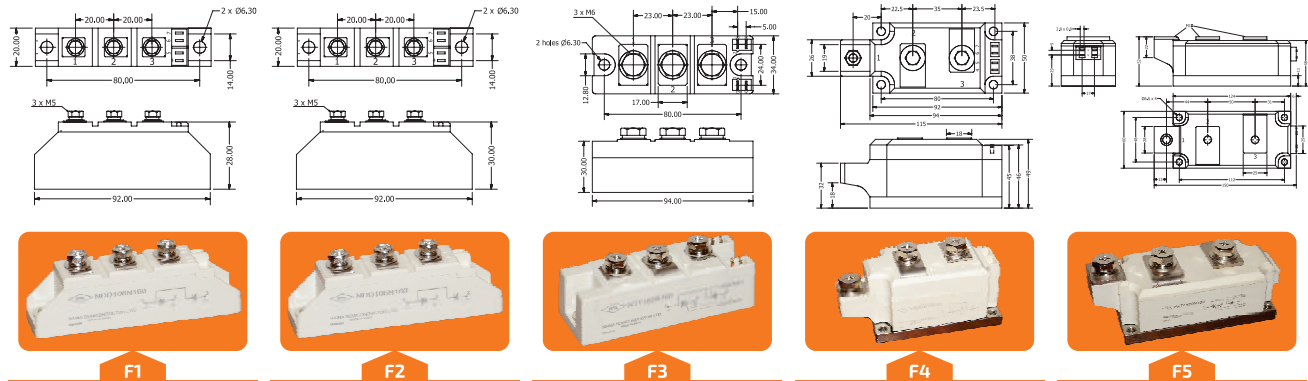
**POWER
YOUR
DESIGNS
WITH US**





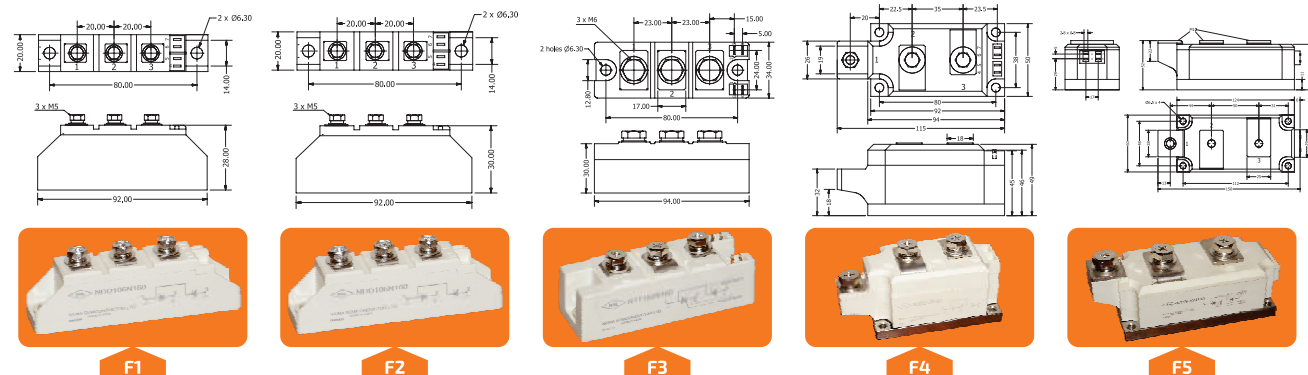
Diode-Diode Module - NDD SERIES

TYPE/ CONFIGURATION	DEVICE TYPE	V _{RRM} (V)	I _{F(AV)} (A)	Max V _{FM} (V)	I _{FSM} (A)	P _T (A ² s)	R _{TH (j-c)} (°C/W)	OUTLINE
NDD..N.. Normal 	NDD26	600-1800	31	1.3	550	1500	1	F1
	NDD46	600-1800	47	1.8	700	2450	0.6	F1
	NDD57	600-1800	60	1.6	1100	6100	0.5	F1
	NDD81	600-1800	82	1.5	2000	20000	0.4	F2
NDD..A.. Common Anode 	NDD100	600-1800	100	1.35	2500	31250	0.35	F2
	NDD132	600-1800	130	1.4	4000	80000	0.25	F3
	NDD162	600-1800	195	1.5	6000	180000	0.18	F3
NDD..K.. Common Cathode 	NDD212	600-1800	212	1.4	6600	217800	0.18	F3
	NDD260	600-1800	260	1.25	11000	605000	0.14	F4
	NDD380	600-1800	380	1.25	11000	605000	0.11	F4
	NDD701	600-1800	700	1.25	25000	3125000	0.07	F5



Thyristor-Diode Module - NTD SERIES

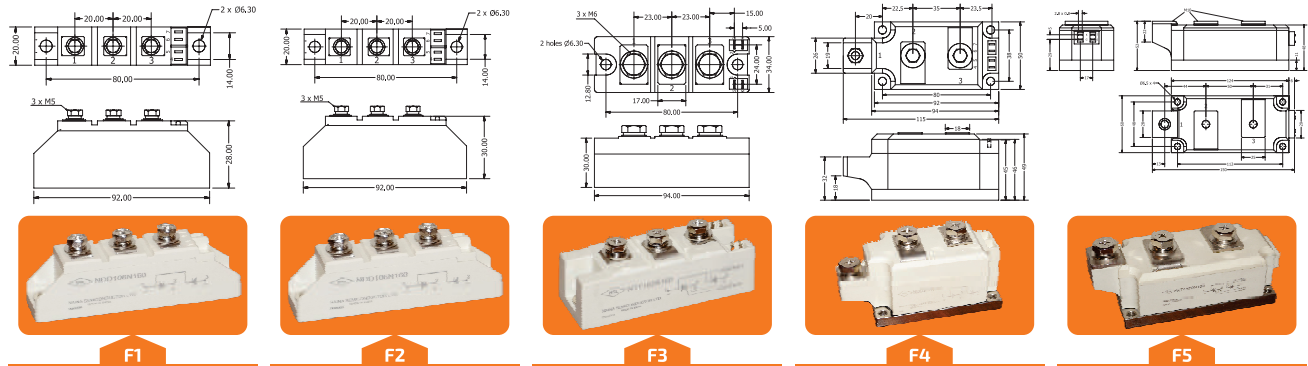
TYPE/ CONFIGURATION	DEVICE TYPE	V _{RRM} (V)	I _{T(AV)} (A)	Max V _{TM} (V)	I _{TSM} (A)	P _T (A ² s)	R _{TH (j-c)} (°C/W)	OUTLINE
NTD..N.. Normal 	NTD27	600-1800	25	1.7	550	1500	0.9	F1
	NTD42	600-1800	40	1.8	1000	5000	0.65	F1
	NTD57	600-1800	50	1.6	1500	11250	0.57	F1
	NTD57 H	2000-2200	50	1.6	1500	11250	0.57	F1
NTD..A.. Common Anode 	NTD72	600-1800	70	1.8	1600	12800	0.35	F1
	NTD72 H	2000-2200	70	1.8	1600	12800	0.35	F1
	NTD92	600-1800	95	1.6	2000	20000	0.28	F2
	NTD106	600-1800	106	1.6	2250	25300	0.28	F2
	NTD122	600-1800	130	1.5	3600	64800	0.21	F3
	NTD132	600-1800	137	1.7	4700	110500	0.18	F3
	NTD132 H	2000-2200	128	1.65	4500	101250	0.17	F3
	NTD162	600-1800	156	1.6	5400	145800	0.17	F3
	NTD162 H	2000-2200	143	1.6	5200	135200	0.16	F3
	NTD172	600-1800	175	1.4	5400	145800	0.15	F3
	NTD250	600-1800	250	1.4	9000	405000	0.14	F4
	NTD273	600-1800	273	1.6	9000	405000	0.1	F4
	NTD323	600-1800	320	1.45	9500	451250	0.09	F4
	NTD330	600-1800	305	1.4	9500	451250	0.11	F4
	NTD460	600-1800	460	1.6	18000	1620000	0.07	F5
	NTD570	600-1800	570	1.45	19000	1805000	0.06	F5





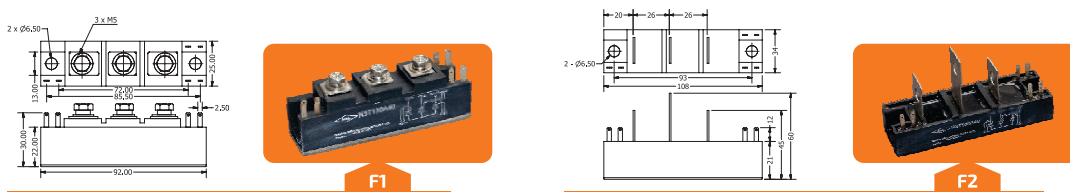
Thyristor-Thyristor Module - NTT Series

TYPE/ CONFIGURATION	DEVICE TYPE	V _{RRM} (V)	I _{T(AV)} (A)	Max V _{TM} (V)	I _{TSM} (A)	I _T (A ² s)	R _{TH (j-c)} (°C/W)	OUTLINE
NTT..N.. - Normal 	NTT27	600-1800	25	1.7	550	1500	0.9	F1
	NTT42	600-1800	40	1.8	1000	5000	0.65	F1
	NTT57	600-1800	50	1.6	1500	11250	0.57	F1
	NTT57 H	2000-2200	50	1.6	1500	11250	0.57	F1
	NTT72	600-1800	70	1.8	1600	12800	0.35	F1
	NTT72 H	2000-2200	70	1.8	1600	12800	0.35	F1
	NTT92	600-1800	95	1.6	2000	20000	0.28	F2
	NTT106	600-1800	106	1.6	2250	25300	0.28	F2
	NTT122	600-1800	130	1.5	3600	64800	0.21	F3
	NTT132	600-1800	137	1.7	4700	110500	0.18	F3
	NTT132 H	2000-2200	128	1.65	4500	101250	0.17	F3
	NTT162	600-1800	156	1.6	5400	145800	0.17	F3
	NTT162 H	2000-2200	143	1.6	5200	135200	0.16	F3
	NTT172	600-1800	175	1.4	5400	145800	0.15	F3
	NTT250	600-1800	250	1.4	9000	405000	0.14	F4
	NTT273	600-1800	273	1.6	9000	405000	0.1	F4
	NTT323	600-1800	320	1.45	9500	451250	0.09	F4
	NTT330	600-1800	305	1.4	9500	451250	0.11	F4
NTT460	600-1800	460	1.6	18000	1620000	0.07	F5	
NTT570	600-1800	570	1.45	19000	1805000	0.06	F5	



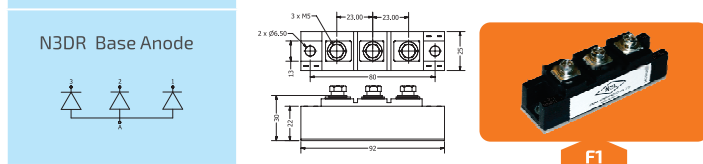
Three-Phase Thyristor Module - N3T SERIES

TYPE/ CONFIGURATION	DEVICE TYPE	V _{RRM} (V)	I _{T(AV)} (A)	V _{TM} (V)	I _{TSM} (A)	I _T (A ² s)	R _{TH (j-c)} (°C/W)	OUTLINE
N3T - Normal 	N3T60	300-400	60	1.25	1800	16200	0.35	F1
	N3T80	300-400	80	1.2	2500	31250	0.35	F1
	N3T100	300-400	100	1.2	3500	61250	0.3	F1
	N3T130	300-400	130	1.2	3500	61250	0.2	F1
	N3T150	300-400	150	1.2	4200	88200	0.16	F2
	N3T200	300-400	200	1.2	5400	145800	0.12	F2



Three-Phase Diode Module - N3D SERIES

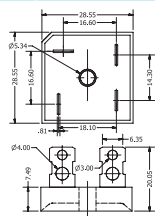
TYPE/ CONFIGURATION	DEVICE TYPE	V _{RRM} (V)	I _{F(AV)} (A)	V _{FM} (V)	I _{FSM} (A)	I _T (A ² s)	R _{TH (j-c)} (°C/W)	OUTLINE
N3D Base Cathode 	N3D40(R)	300-400	40	1.15	800	3200	0.6	F1
	N3D50(R)	300-400	50	1.15	1000	5000	0.5	F1
	N3D70(R)	300-400	70	1.15	1400	9800	0.4	F1
	N3D100(R)	300-400	100	1.15	2000	20000	0.25	F1



Bridge Rectifier - GBPC Series

DEVICE TYPE	V _{RRM} (V)	I _{F(AV)} (A)	V _F (V)	I _{FSM} (A)	I _R (μA)	V _{iso} (V)	OUTLINE
GBPC15	100-1200	15	1.1	300	5	2500	F1
GBPC25	100-1200	25	1.1	350	5	2500	F1
GBPC35	100-1200	35	1.1	400	5	2500	F1
GBPC50	100-1200	50	1.1	450	10	2500	F1

TYPE/ CONFIGURATION	CIRCUIT DRAWING
Single-Phase Bridge Rectifier	

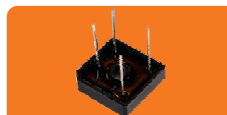
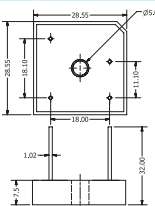


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Bridge Rectifier - GBPC-W Series

DEVICE TYPE	V _{RRM} (V)	I _{F(AV)} (A)	V _F (V)	I _{FSM} (A)	I _R (μA)	V _{iso} (V)	OUTLINE
GBPC15..W	100-1200	15	1.1	300	5	2500	F1
GBPC25..W	100-1200	25	1.1	350	5	2500	F1
GBPC35..W	100-1200	35	1.1	400	5	2500	F1
GBPC50..W	100-1200	50	1.1	450	10	2500	F1

TYPE/ CONFIGURATION	CIRCUIT DRAWING
Single Phase Bridge Rectifier	

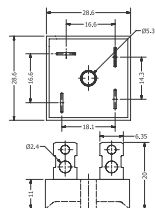


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Bridge Rectifier - KBPC Series

DEVICE TYPE	V _{RRM} (V)	I _{F(AV)} (A)	V _F (V)	I _{FSM} (A)	I _R (μA)	V _{iso} (V)	OUTLINE
KBPC15	100-1200	15	1.1	300	5	2500	F1
KBPC25	100-1200	25	1.1	350	5	2500	F1
KBPC35	100-1200	35	1.1	400	5	2500	F1
KBPC50	100-1200	50	1.1	450	10	2500	F1

TYPE/ CONFIGURATION	CIRCUIT DRAWING
Single Phase Bridge Rectifier	

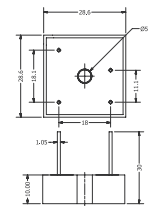


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Bridge Rectifier - KBPC-W Series

DEVICE TYPE	V _{RRM} (V)	I _{F(AV)} (A)	V _F (V)	I _{FSM} (A)	I _R (μA)	V _{iso} (V)	OUTLINE
KBPC15..W	100-1200	15	1.1	300	5	2500	F1
KBPC25..W	100-1200	25	1.1	350	5	2500	F1
KBPC35..W	100-1200	35	1.1	400	5	2500	F1
KBPC50..W	100-1200	50	1.1	450	10	2500	F1

TYPE/ CONFIGURATION	CIRCUIT DRAWING
Single Phase Bridge Rectifier	

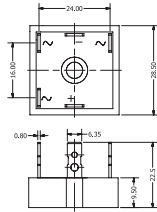


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Three Phase Bridge Rectifier - MT SERIES

DEVICE TYPE	V _{RRM} (V)	I _{F(AV)} (A)	V _F (V)	I _{FSM} (A)	I _R (mA)	V _{ISO} (V)	OUTLINE
26MT	800-1600	25	1.2	360	2	2500	F1
36MT	800-1600	35	1.2	475	2	2500	F1

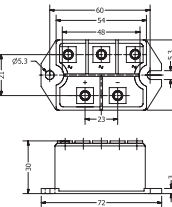
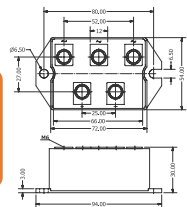
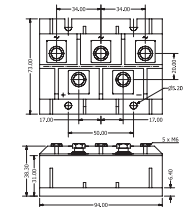
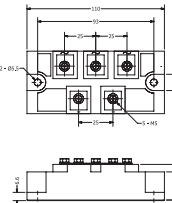
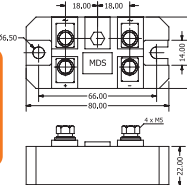
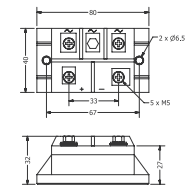
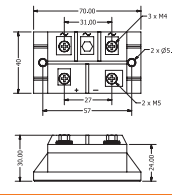
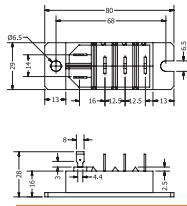
TYPE/CONFIGURATION	CIRCUIT DRAWING
Three Phase Bridge Rectifier	



Single Phase Bridge Rectifier Module - MDQ SERIES

DEVICE TYPE	V _{RRM} (V)	I _{F(AV)} (A)	V _F (V)	I _{FSM} (A)	I _R (mA)	V _{ISO} (V)	OUTLINE
MDQ30	800-1600	30	1.1	300	5	3000	F1
MDQ40	800-1600	40	1.1	400	5	3000	F1
MDQ50	800-1600	50	1.2	600	8	3000	F2
MDQ60	800-1600	60	1.2	700	8	3000	F2, F8
MDQ70	800-1600	70	1.2	800	8	3000	F3, F8
MDQ80	800-1600	80	1.2	950	8	3000	F3, F8
MDQ100	800-1600	100	1.3	1150	10	3000	F4, F7
MDQ110	800-1600	110	1.3	1200	10	3000	F4, F7
MDQ160	800-1600	160	1.35	1500	15	3000	F5, F6, F7
MDQ200	800-1600	200	1.4	1800	15	3000	F5, F6, F7

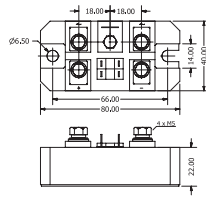
TYPE/CONFIGURATION	CIRCUIT DRAWING
Single Phase Bridge Rectifier	



Single-Phase Half-Controlled Bridge Module NHQ SERIES

DEVICE TYPE	V _{RRM} (V)	I _{T(AV)} (A)	V _{TM} (V)	I _{TSM} (A)	I _R (mA)	V _{ISO} (V)	OUTLINE
NHQ45	800-1600	45	1.35	470	5	3000	F1
NHQ60	800-1600	60	1.4	600	5	3000	F1
NHQ75	800-1600	75	1.45	1100	5	3000	F1

TYPE/CONFIGURATION	CIRCUIT DRAWING
Single Phase Half Controlled Module	

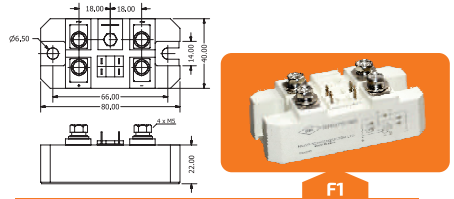




Single-Phase Full Controlled Bridge Module NFQ SERIES

DEVICE TYPE	V _{RRM} (V)	I _{T(AV)} (A)	V _{TM} (V)	I _{TSM} (A)	I _r (mA)	V _{iso} (V)	OUTLINE
NFQ45	800-1600	45	1.35	470	5	3000	F1
NFQ60	800-1600	60	1.4	600	5	3000	F1
NFQ75	800-1600	75	1.45	1100	5	3000	F1

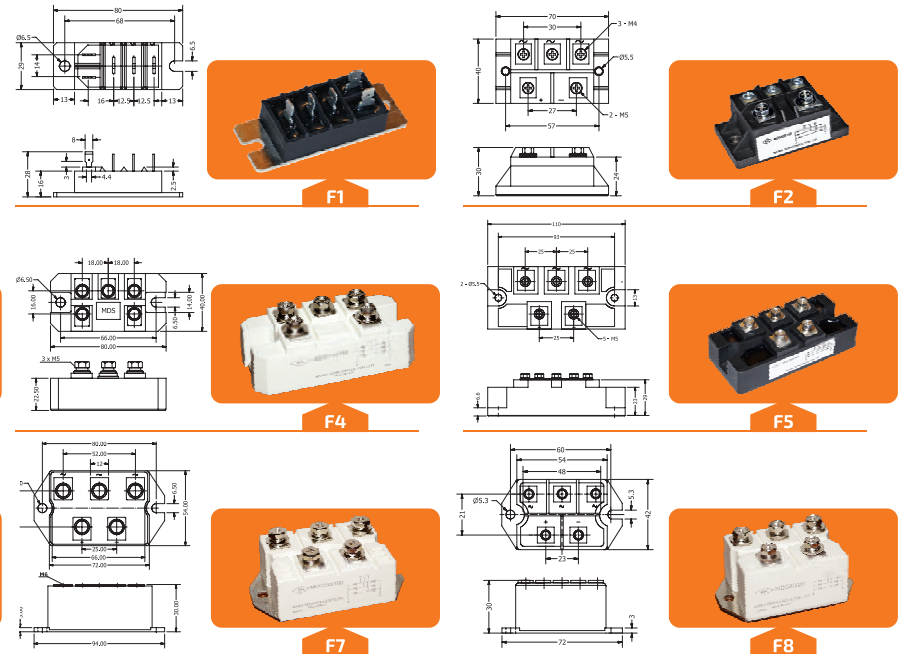
TYPE/CONFIGURATION	CIRCUIT DRAWING
Single Phase Full Controlled Bridge Module	



Three-Phase Bridge Rectifier Module - MDS SERIES

DEVICE TYPE	V _{RRM} (V)	I _{F(AV)} (A)	V _F (V)	I _{FSM} (A)	I _r (mA)	V _{iso} (V)	OUTLINE
MDS30	800-1600	30	1.1	300	5	3000	F1
MDS40	800-1600	40	1.1	400	5	3000	F1
MDS50	800-1600	50	1.2	600	8	3000	F2
MDS60	800-1600	60	1.2	700	8	3000	F2, F8
MDS70	800-1600	70	1.2	800	8	3000	F3, F8
MDS80	800-1600	80	1.2	950	8	3000	F3, F8
MDS100	800-1600	100	1.3	1150	10	3000	F4, F7
MDS110	800-1600	110	1.3	1200	10	3000	F4, F7
MDS160	800-1600	160	1.35	1500	15	3000	F5, F6, F7
MDS200	800-1600	200	1.4	1800	15	3000	F5, F6, F7

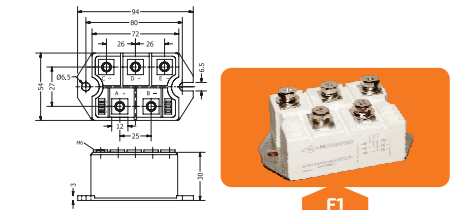
TYPE/CONFIGURATION	CIRCUIT DRAWING
Three Phase Bridge Rectifier	



Three-Phase Half Controlled Bridge Module NHS SERIES

DEVICE TYPE	V _{RRM} (V)	I _{T(AV)} (A)	V _{TM} (V)	I _{TSM} (A)	I _r (mA)	V _{iso} (V)	OUTLINE
NHS60	800-1600	60	1.75	470	10	3000	F1
NHS100	800-1600	100	1.75	1000	10	3000	F1

TYPE/CONFIGURATION	CIRCUIT DRAWING
Three Phase Half Controlled Module	

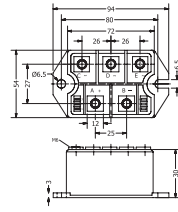


BRIDGE RECTIFIERS

Three-Phase Full Controlled Bridge Module NFS SERIES

DEVICE TYPE	V_{RRM} (V)	$I_T(AV)$ (A)	V_{TM} (V)	I_{TSM} (A)	I_r (mA)	V_{iso} (V)	OUTLINE
NFS60	800-1600	60	1.75	470	10	3000	F1
NFS100	800-1600	100	1.75	1000	10	3000	F1

TYPE / CONFIGURATION	CIRCUIT DRAWING
Three Phase Full Controlled Module	



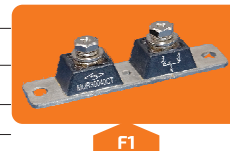
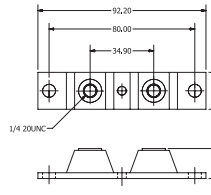
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SCHOTTKY DIODE MODULE

Twin Tower Package MBR SERIES

DEVICE TYPE	V_{RRM} (V)	$I_F(AV)$ (A)	I_{FSM} (A)	I_r (mA)	$R_{TH(j-c)}$ (V)	OUTLINE
MBR12020CT Thru MBR12040CTR	20-40	120	800	200	0.8	F1
MBR12045CT Thru MBR120100CTR	45-100	120	800	200	0.8	F1
MBR20020CT Thru MBR20040CTR	20-40	200	1500	200	0.5	F1
MBR20045CT Thru MBR200100CTR	45-100	200	1500	200	0.5	F1
MBR30020CT Thru MBR30040CTR	20-40	300	2500	200	0.4	F1
MBR30045CT Thru MBR300100CTR	45-100	300	2500	200	0.4	F1
MBR40020CT Thru MBR40040CTR	20-40	400	3000	200	0.35	F1
MBR40045CT Thru MBR400100CTR	45-100	400	3000	200	0.35	F1

TYPE / CONFIGURATION	CIRCUIT DRAWING
Twin Tower Schottky Diode Module	



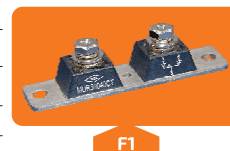
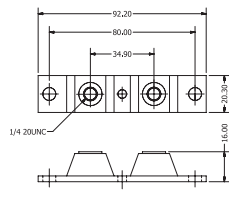
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SUPER FAST RECOVERY RECTIFIERS

Twin Tower Package MUR SERIES

DEVICE TYPE	V_{RRM} (V)	$I_F(AV)$ (A)	I_{FSM} (A)	I_r (μ A)	$R_{TH(j-c)}$ (V)	OUTLINE
MUR10005CT Thru MUR10020CTR	50-200	100	400	25	1.0	F1
MUR10040CT Thru MUR10060CTR	400-600	100	400	25	1.0	F1
MUR20005CT Thru MUR20020CTR	50-200	200	800	25	1.0	F1
MUR20040CT Thru MUR20060CTR	400-600	200	800	25	1.0	F1
MUR30005CT Thru MUR30020CTR	50-200	300	1500	25	1.0	F1
MUR30040CT Thru MUR30060CTR	400-600	300	1500	25	1.0	F1
MUR40005CT Thru MUR40020CTR	50-200	400	2400	25	0.14	F1
MUR40040CT Thru MUR40060CTR	400-600	400	2400	25	0.14	F1

TYPE / CONFIGURATION	CIRCUIT DRAWING
Twin Tower Super Fast Recovery Rectifiers	



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ABOUT NAINA SEMICONDUCTOR LTD.

Naina Semiconductor Ltd. was incorporated in the year 1988 in the state of Uttar Pradesh in India. Starting with plastic devices such as standard recovery & fast recovery diodes in packages of DO-41, DO-27 & R-6 for various applications, the company has grown to new heights. Over the past 24 years, the company has expanded rapidly in the field of power semiconductors and is now one of the leading manufacturers of these components in India.

Certification & Standards

- » The company has earned the ISO 9001:2008 Certification, which is the standard of quality management system. With this, we are able to keep up and maintain a strict control on the quality system for all the products. We are able to provide the customer what they need and guaranteeing the best quality which exceeds their expectations. Every step in the production process is thoroughly checked and tested to ensure only the best and stable quality products are produced.
- » We also comply with the RoHS and Lead-Free International standards, and guarantee the environmental safety of our components.
- » All of our devices follow the international JEDEC package standards as well as the military grade standards, MIL-STDs.

Applications & Technology

The products are of the highest standards with high demands in the field of industrial electronics. Welding machines, Battery Chargers, UPS, Power Supplies, Control Panels, Telecom, Railways, Defence, Automotive, Induction heating, Solar Junction boxes, Wind Energy etc. are just some of the applications of this product line.

The continuous improvement in technology enables us to bring forth more advanced and competitive products keeping in mind the demand of the customers as the key goal.

Company Goal

Our mission is to provide customers with world-class products, through constant innovation, design, development and production, while maintaining strict quality control. We firmly believe in keeping our customers needs as a priority and also have a win-win business philosophy. We are always striving towards excellence and believe that under our customers care and support, we can build a fruitful relationship for the future.



NAINA SEMICONDUCTOR LTD.

ISO 9001:2015 CERTIFIED COMPANY

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