

**DIODE MODULES
 OF FAST-RECOVERY DIODES
 M4.1FRD, M4.1FRDA, M4.1FRDB, M4.1FRDC, M4.1FRDD
 50, 100, 150, 200, 250, 300, 400 A 12 class**

TICKET

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The single fast-recovery diode-diode module is intended for using composed of high-powered converters.

DRAWINGS

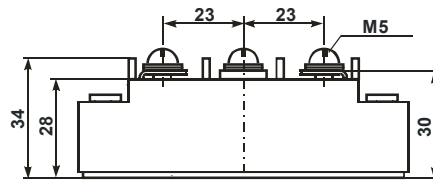


Figure 1 – Drawing of housing E2

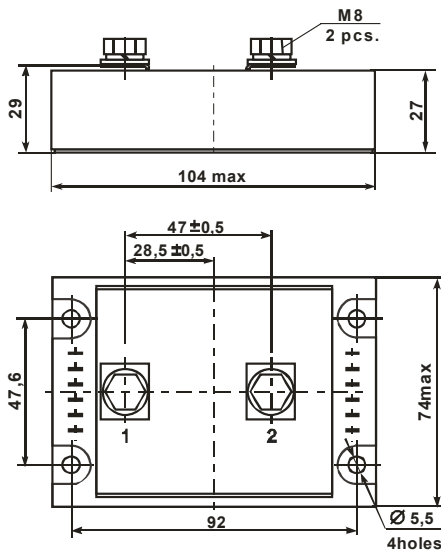


Figure 2 – Drawing of housing DM

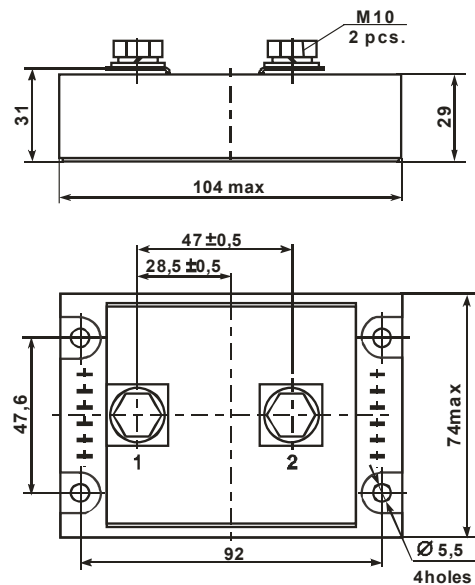


Figure 3 – Drawing of housing DM

TABLE OD OVERALL DRAWINGS

Name	Figure	Name	Figure	Name	Figure	Name	Figure	Name	Figure
M4.1FRD-50-12	1	M4.1FRDA-50-12	1	M4.1FRDB-50-12	1	M4.1FRDC-50-12	1	M4.1FRDD-50-12	1
M4.1FRD-100-12	1	M4.1FRDA-100-12	1	M4.1FRDB-100-12	1	M4.1FRDC-100-12	1	M4.1FRDD-100-12	1
M4.1FRD-150-12	1	M4.1FRDA-150-12	1	M4.1FRDB-150-12	1	M4.1FRDC-150-12	1	M4.1FRDD-150-12	1
M4.1FRD-200-12	2	M4.1FRDA-200-12	-	M4.1FRDB-200-12	2	M4.1FRDC-200-12	-	M4.1FRDD-200-12	-
M4.1FRD-250-12	2	M4.1FRDA-250-12	-	M4.1FRDB-250-12	2	M4.1FRDC-250-12	-	M4.1FRDD-250-12	-
M4.1FRD-300-12	2	M4.1FRDA-300-12	-	M4.1FRDB-300-12	2	M4.1FRDC-300-12	-	M4.1FRDD-300-12	-
M4.1FRD-400-12	3	M4.1FRDA-400-12	-	M4.1FRDB-400-12	3	M4.1FRDC-400-12	-	M4.1FRDD-400-12	-

INTERNAL CONNECTIONS CHEMES

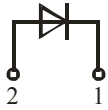


Figure 4 – Connection scheme of M4.1FRD

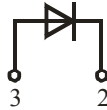


Figure 5 – Connection scheme of M4.1FRDA

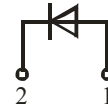


Figure 6 – Connection scheme of M4.1FRDB

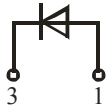


Figure 7 – Connection scheme of M4.1FRDC

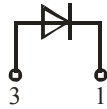


Figure 8 – Connection scheme of M4.1FRDD

BASIC CHARACTERISTIC

T = 25 °C

Product name	Pulse DC voltage, U_{FM} , V		Repeated pulse reverse current, I_{RRM} , mA		Electric DC isolation strength between radiator and power outputs, U_{ISOL} , V		Reverse recovery time, t_{rr} , ns	Thermal resistance junction-cooler $R_{th(j-c)}$, °C/W
	max	I_o , A	max	U_{OUT} , V	min	t, min		
M4.1FRDx-50-12	2.1	50	1.0	1200	4000	1	200	0.55
M4.1FRDx-100-12		100						0.30
M4.1FRDx-150-12		150						0.22
M4.1FRDx-200-12		200						0.19
M4.1FRDx-250-12		250						0.15
M4.1FRDx-300-12		300						0.11
M4.1FRDx-400-12		400						0.08

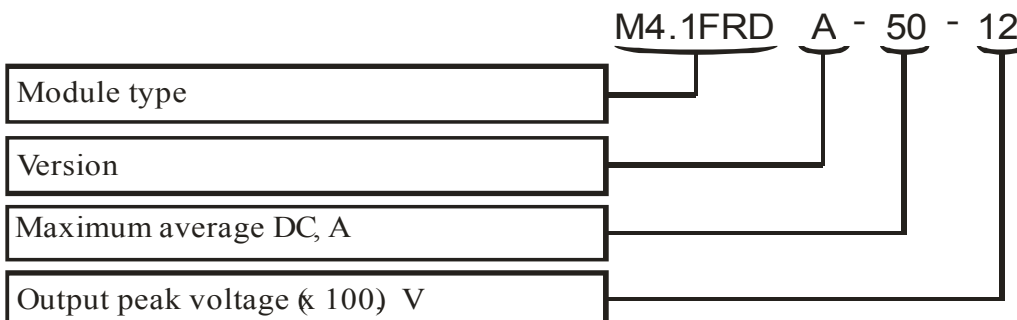
MAXIMUM PERMISSIBLE OPERATING MODES

Product name	Non-repeated pulse reverse voltage U_{RSM} , V	Repeated pulse reverse diode voltage U_{RRM} , V	Average diode DC $I_{F(AV)}$, A	Surge diode DC $I_{F(SM)}$, A		Critical rate of open state current rise, $(di_F / dt)_{cr}$, A/μs	Junction-temperature T_{VJ}^* , °C	
				t, ms	max		min	max
M4.1FRDx-50-12	1200	1200	50	500	10	150	- 40	+125
M4.1FRDx-100-12			100	1000				
M4.1FRDx-150-12			150	1500				
M4.1FRDx-200-12			200	2000				
M4.1FRDx-250-12			250	2500				
M4.1FRDx-300-12			300	3000				
M4.1FRDx-400-12			400	4000				

* The module is designed for operating in the equipment using a cooler that supports junction temperature in the prescribed ranges

Precious metals are not contained.

MODULE SYMBOL



Note – Ordering the module you should specify the housing type (E2, DM)