

DIODE-DIODE MODULES

M4.2; M4.2A

25A, 40A, 63A, 80A, 100A, 125A, 160A, 200A, 250A; 12 class DATASHEET IN BRIEF

A module of two diodes with common cathode is intended to use it as a part of power converters.

OVERALL DRAWINGS

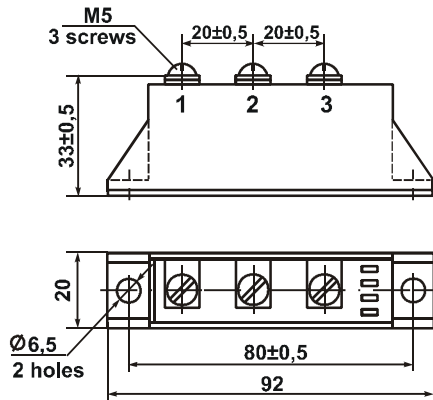


Figure 1 – Overall drawing of package E1

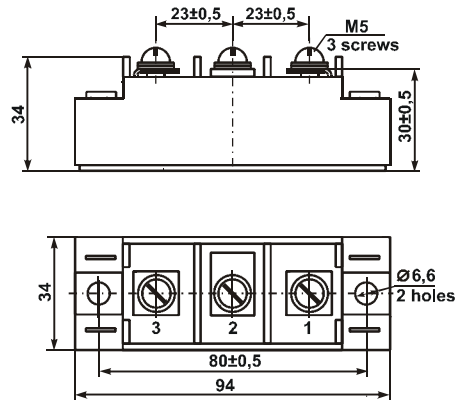


Figure 2– Overall drawing of package E2

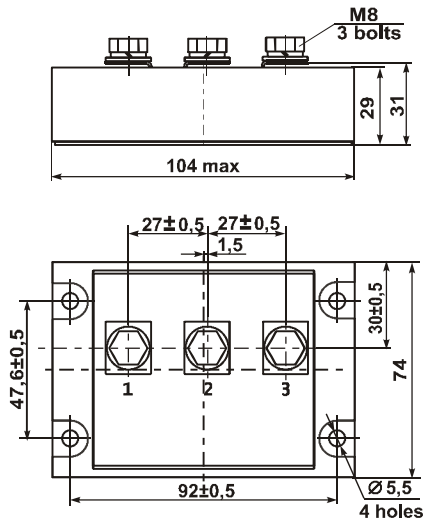


Figure 3 - Overall drawing of package DM

TABLE OF OVERALL DRAWINGS

Module name	Figure	Module name	Figure
M4.2-25-12	1 or 2	M4.2A-25-12	1 or 2
M4.2-40-12	1 or 2	M4.2A-40-12	1 or 2
M4.2-63-12	1 or 2	M4.2A-63-12	1 or 2
M4.2-80-12	1 or 2	M4.2A-80-12	1 or 2
M4.2-100-12	2	M4.2A-100-12	2
M4.2-125-12	2	M4.2A-125-12	2
M4.2-160-12	2	M4.2A-160-12	2
M4.2-200-12	3	M4.2A-200-12	3
M4.2-250-12	3	M4.2A-250-12	3

INTERNAL CONNECTION CIRCUITS

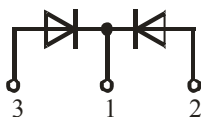


Figure 5 – Modules connection circuit of type M4.2

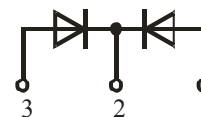


Figure 6 – Modules connection circuit of type M4.2A

BASIC CHARACTERISTICS

T = 25 °C

Product name	Pulse direct voltage, U_{FM} , V		Repetitive pulse reverse current, I_{RRM} , mA		Electric isolation strength at DC between radiator and power outputs, U_{ISOL} , V		Thermal junction to cooler resistance, $R_{th(j-c)}$, (°C/W)	
	max	I_O , A amplit. value	max	U_r , V	min	t, minute	max	
M4.2(A)-25-12	1.65	$\pi \cdot I_{F(AV)}$, 10 ms, 50 Hz, sinus	1.0	1200	4000	1	0.8	
M4.2(A)-40-12							0.7	
M4.2(A)-63-12							0.55	
M4.2(A)-80-12							0.45	
M4.2(A)-100-12							0.3	
M4.2(A)-125-12							0.25	
M4.2(A)-160-12							0.22	
M4.2(A)-200-12							0.19	
M4.2(A)-250-12							0.15	

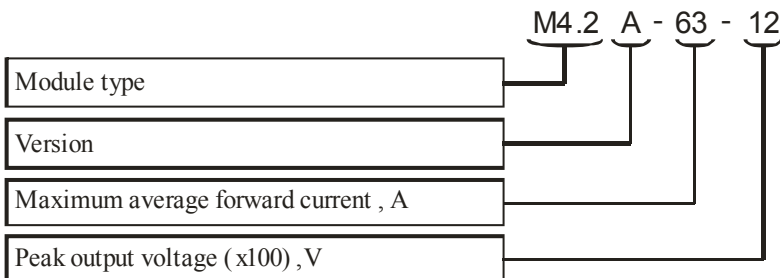
MAXIMUM ALLOWABLE OPERATING MODES

Product name	Non-repetitive pulse reverse voltage U_{RSM} , V	Diode repeti- tive pulse re- verse voltage/ off-state, U_{RRM} , V	Diode average DC $I_{F(AV)}$, A	Diode root- mean-square DC I_{FRMS} , A	Diode surge DC $I_{F(SM)}$, A,		Critical rate of rise of on-state current, (di_T / dt) cr, A/ μ s	Junction temperature, T_{VJ}^{**} , °C	
					t, ms	max		min	max
M4.2(A)-25-12	1300	1200	25	39	200	10	150	- 40	+125
M4.2(A)-40-12			40	63	560				
M4.2(A)-63-12			63	95	720				
M4.2(A)-80-12			80	125	960				
M4.2(A)-100-12			100	155	1350				
M4.2(A)-125-12			125	188	2500				
M4.2(A)-160-12			160	250	4000				
M4.2(A)-200-12			200	310	5000				
M4.2(A)-250-12			250	390	6000				

* the modules are designed to operate in equipment with using of coolers that support transition temperature in the prescribed ranges

Precious metals are not contained

MODULE DESCRIPTION



Note – when ordering the module you must specify the housing type (E1, E2, DM)

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