

THYRISTOR-DIODE MODULE MO3-(25, 40, 63, 80, 100, 125, 160, 200, 250)-16; MO3A-(25, 40, 63, 80, 100, 125, 160, 200, 250)-16 DATASHEET IN BRIEF

Thyristor-diode module with opto decoupling is intended for operating in AC circuits.

OVERALL DRAWINGS

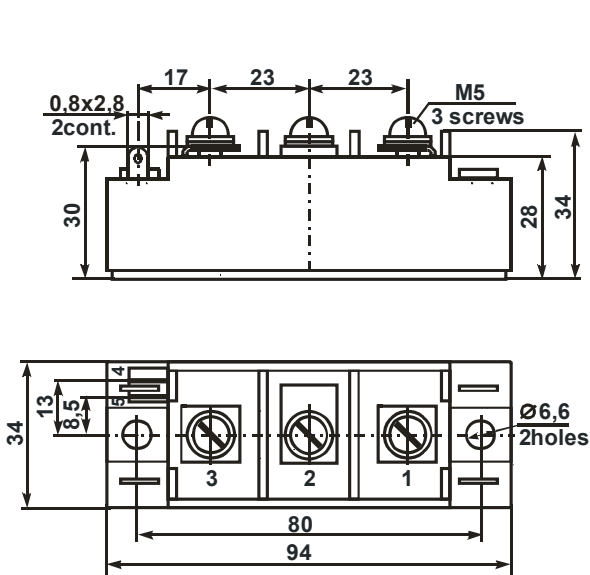


Figure 1

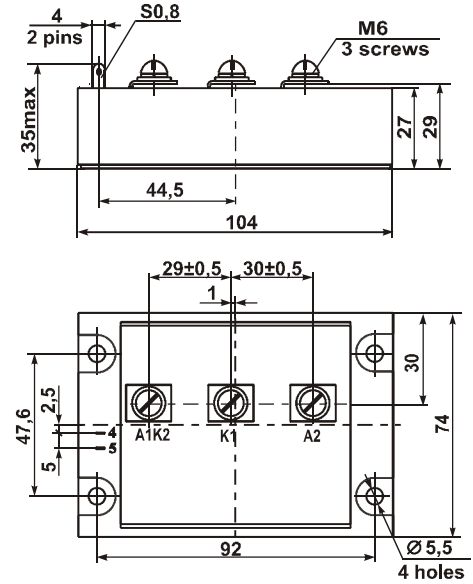


Figure 2

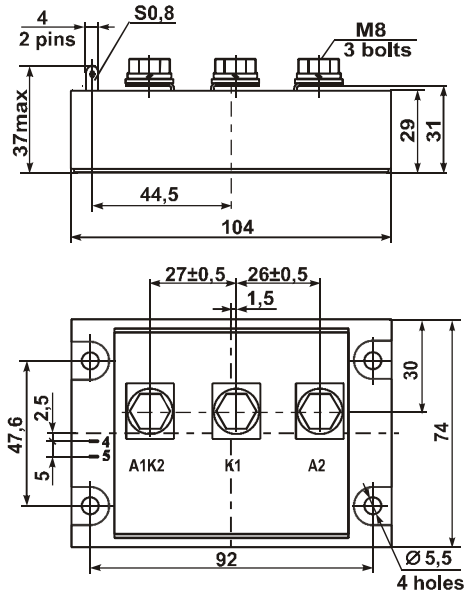


Figure 3

Product description	Figure
MO3(A)-25-16	1, 4
MO3(A)-40-16	1, 4
MO3(A)-63-16	1, 4
MO3(A)-80-16	1, 4
MO3(A)-100-16	1, 4
MO3(A)-125-16	1, 4
MO3(A)-160-16	1, 4 or 2, 5
MO3(A)-200-16	3, 5
MO3(A)-250-16	3, 5

INTERNAL CONNECTION CIRCUITS

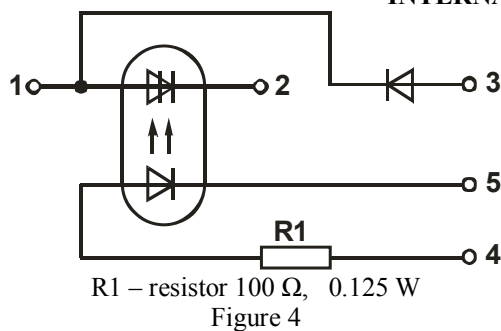


Figure 4

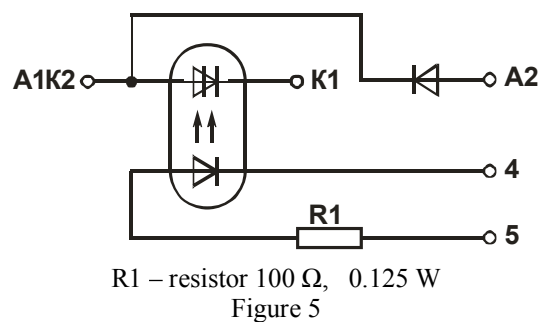


Figure 5

BASIC CHARACTERISTICS

T = 25 °C

Product name	Peak voltage in thyristor on-state / direct diode peak voltage, U_{TM} / U_{FM} , V		Off-state DC/reverse thyristor (diode) current, I_D / I_R , mA		On-state voltage on control input, U_{Gon} , V ($I_{Gon}=10$ mA)		Isolation resistance between power outputs and controlling outputs, R_{ISOL} MΩ		Isolation resistance between power outputs and radiator, R_{ISOL} in-out MΩ		Electric isolation strength at DC between radiator and power outputs U_{ISOL} out-c, V		Thermal resistance transition-housing radiator R_{thic} , °C/W	
	max	I_{OUT} , A	max	U_{OUT} , V	max	min	min	U, V	min	U, V	min	t, min	thyristor max	diode max
MO3-25-16	1.65	79	1.0	±1600	5.5	100	500	10	500	4000	1	0.8	1.2	
MO3-40-16		126										0.7	0.9	
MO3-63-16		198										0.55	0.6	
MO3-80-16		251										0.45	0.5	
MO3-100-16		314										0.3	0.4	
MO3-125-16		393										0.25	0.3	
MO3-160-16		503										0.22	0.25	
MO3-200-16		628										0.19	0.21	
MO3-250-16		785										0.15	0.169	

Note –module characteristics values of type MO3A are identical to the characteristic values of the relevant modules MO3

MAXIMUM ALLOWABLE OPERATING MODES

Product name	Repetitive pulse reverse voltage/off-state, U_{RRM} / U_{DRM} , V	Average on-state current with cooler $I_{T(AV)}$, A, $T_c=75$ °C	Controlling input current corresponding to on-state, I_{Gon} , mA		Controlling pulse input current corresponding to on-state, I_{GMon} , mA			Input off-state voltage, U_{Goff} , V		Surge on-state current*, I_{TSM} , A	Switching voltage, U_{sw} , V		Critical rate of rise of off-state voltage, $(du_d / dt)_{cr}$, V/μs	Critical rate of rise of on-state current, $(di_T / dt)_{cr}$, A/μs	Junction temperature, T_{VJ}^{***} , °C		
			min	max	max	t, μs	Q	min	max		max	t, ms			min	max	min
MO3-25-16	±1600	25	10	25	100	100	10	-3.5	0.8	10	50**	1150	1000	150	-40	+125	
MO3-40-16		40															200
MO3-63-16		63															560
MO3-80-16		80															720
MO3-100-16		100															960
MO3-125-16		125															1350
MO3-160-16		160															2500
MO3-200-16		200															4000
MO3-250-16		250															5000
																	6000

* to thyristor

**10 V – for modules of type MO3A (the value of remaining modes of modules types MO3A are identical with values mode of relevant modules MO3)

***the modules are designed for operating in the equipment with using of coolers, supporting transition temperature in the prescribed ranges

Precious metals are not contained

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