

TMV Series

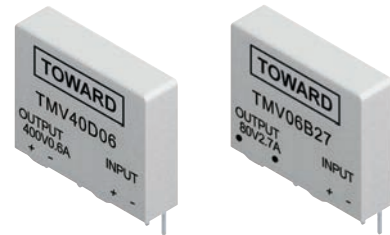
D/D·D/A·Load Current:0.45~3.6A

Features

- Optically isolated
- Ultra Slim and light weight, Sil terminals type for high density mounting :
--Size : 5(W) x 20(L) x 17(H) mm;
--Weight : approximately 3.0g
- Low On-state resistance
- Low input power consumption
- MOSFET output thyristor

Applications

- Temperature control system
- Industrial automatic control
- Lighting system
- Office appliances
- Factory appliances



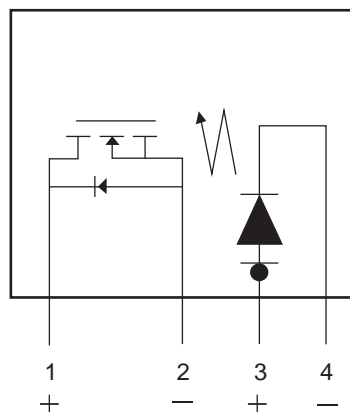
Order Code:

TMV 40 D 06

a b c d

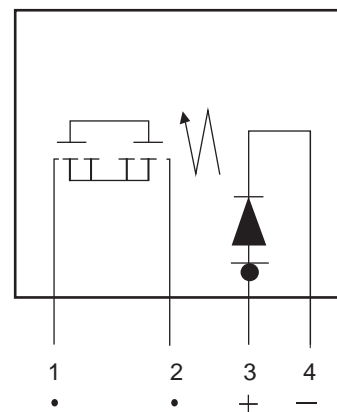
a : Model : TMV = Mini SIP Type, Voltage Input
 b : Output Voltage : 06 = 60V ; 10 = 100V ; 20 = 200V ; 40 = 400V
 c : Output Type : B = AC / DC Type, D = DC Type
 d : Output Current : 04 = 0.45A, 06 = 0.6A, 09 = 0.9A, 11 = 1.1A,
 18 = 1.8A, 25 = 2.5A, 27 = 2.7A, 36 = 3.6A

Terminal Identification



DC Type

Pin1: DC Output +
 Pin2: DC Output -
 Pin3: DC Voltage input +
 Pin4: DC Voltage input -



AC/DC Type

Pin1: AC/DC Output ●
 Pin2: AC/DC Output ●
 Pin3: DC Voltage input +
 Pin4: DC Voltage input -

為了持續的改進，敝司有權在不影響規格範圍的情況下修改設計。

In the interest of continuous development, our companies reserve the right to alter designs within specification range.

Rating

AC/DC Type 1) Absolute Maximum Ratings (Ambient Temperature 25°C)

Item		Symbol	06B27	10B18	20B09	40B04	Remarks
Input	Voltage range	V_{IN}	4~32V				
	Reverse Voltage	V_{RIN}	5V				
	Power Dissipation	P_{IN}	300mW				
output	Load Voltage (Peak AC)	V_L	60V	100V	200V	400V	
	Continuous Load Current (Peak AC)	I_L	2.7A	1.8A	0.9A	0.45A	
	Peak Load Current	I_{PEAK}	9.0A	6.0A	3.0A	1.5A	100mS (1shot)
	Power Dissipation	P_{OUT}	1.6W				
Total Power Dissipation		P_T	1.6W				
I/O Breakdown Voltage		V_{IO}	2500VAC				
Operating Temperature		T_{OPR}	-40°C ~+85°C				
Storage Temperature		T_{STG}	-40°C ~+100°C				

2) Electrical Specifications (Ambient Temperature 25°C)

Item		Symbol	06B27	10B18	20B09	40B04	Remarks	
Input	Operate Voltage	Typical	1.4V				$I_L=100mA$ $V_L=10V$	
		Maximum	4V					
	Turn Off Voltage	Typical	1.3V				$I_L=100mA$ $V_L=10V$	
		Maximum	0.8V					
	Input current	Typical	I_{IN}	7.2mA				$V_{IN}=5V$
Typical								
output	On-Resistance	Maximum	0.09Ω	0.14Ω	0.5Ω	2.4Ω	$V_{IN}=5V$ $I_L=Max$ Within 1 Sec on time	
		Maximum	0.18Ω	0.28Ω	1.0Ω	3.6Ω		
	Off-State Leakage Current	Typical	-	10 μA				$V_{IN}=5V$ $V_L=Max$
Others	Switching Speed	Turn-On Time	Maximum	2.5mS	4.2mS	2.8mS	1.5mS	$V_{IN}=5V$ $I_L=100mA$ $V_L=10V$
			Typical	10mS				
		Turn-Off Time	Maximum	0.1mS	0.1mS	0.1mS	0.1mS	$V_{IN}=5V$ $I_L=100mA$ $V_L=10V$
			Typical	3.0mS				
	I/O Capacitance	Maximum	C_{IO}	0.8pF				f=1MHz
		Maximum		2.0pF				
	I/O Insulation Resistance	Maximum	R_{IO}	1000MΩ				500VDC
Maximum Operating Speed	Maximum	-	0.5cps				$V_{IN}=5V$, Duty Fator=50% $I_L \times V_L=200(VA)$	

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DC Type

1) Absolute Maximum Ratings (Ambient Temperature 25°C)

Item		Symbol	06D36	10D25	20D11	40D06	Remarks
Input	Voltage range	V_{IN}	4~32V				
	Reverse Voltage	V_{RIN}	5V				
	Power Dissipation	P_{IN}	300mW				
output	Load Voltage (Peak AC)	V_L	60V	100V	200V	400V	
	Continuous Load Current (Peak AC)	I_L	3.6A	2.5A	1.1A	0.6A	
	Peak Load Current	I_{PEAK}	9.0A	6.0A	3.0A	1.5A	100mS (1shot)
	Power Dissipation	P_{OUT}	1.35W				
Total Power Dissipation		P_T	1.35W				
I/O Breakdown Voltage		$V_{I/O}$	2500VAC				
Operating Temperature		T_{OPR}	-40°C ~+85°C				
Storage Temperature		T_{STG}	-40°C ~+100°C				

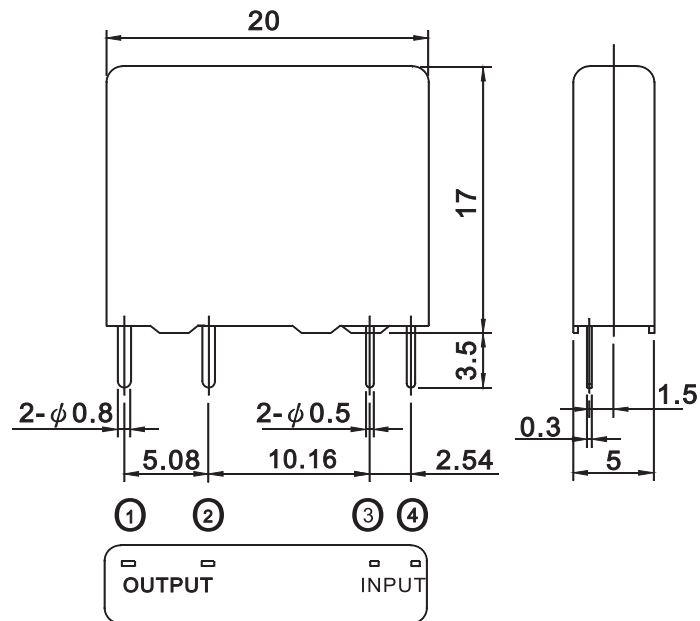
2) Electrical Specifications (Ambient Temperature 25°C)

Item		Symbol	06D36	10D25	20D11	40D06	Remarks	
Input	Operate Voltage	Typical	1.4V				$I_L=100mA$ $V_L=10V$	
		Maximum	4V					
	Turn Off Voltage	Typical	1.3V				$I_L=100mA$ $V_L=10V$	
		Maximum	0.8V					
	Input current	Typical	I_{IN}	7.2mA				$V_{IN}=5V$
Typical								
output	On-Resistance	Maximum	0.045Ω	0.07Ω	0.25Ω	1.2Ω	$V_{IN}=5V$ $I_L=Max$ Within 1 Sec on time	
		Maximum	0.09Ω	0.14Ω	0.5Ω	1.8Ω		
	Off-State Leakage Current	Typical	-	10 μA				$V_{IN}=5V$ $V_L=Max$
Others	Switching Speed	Turn-On Time	Maximum	1.5mS	2.5mS	1.5mS	1.0mS	$V_{IN}=5V$ $I_L=100mA$ $V_L=10V$
			Typical	10mS				
		Turn-Off Time	Maximum	0.1mS	0.1mS	0.1mS	0.1mS	$V_{IN}=5V$ $I_L=100mA$ $V_L=10V$
			Typical	3.0mS				
	I/O Capacitance	Maximum	$C_{I/O}$	0.8pF				f=1MHz
		Maximum		2.0pF				
	I/O Insulation Resistance	Maximum	$R_{I/O}$	1000MΩ				500VDC
Maximum Operating Speed	Maximum	-	0.5cps				$V_{IN}=5V$, Duty Fator=50% $I_L \times V_L=200(VA)$	

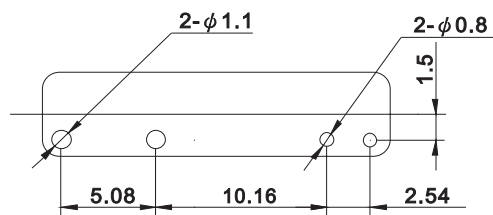
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Dimensions : (Unit : mm)



P.C.B. Layout (TOP View)



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