

# 40-5 Series 1500V·1a

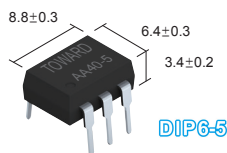


## Features

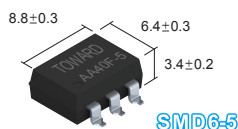
- Contact Form 1a
- Load Voltage 1500V
- Operation LED Current 5.0mA
- Load Current 45mA
- On-Resistance 180Ω
- Output Capacitance 83pF
- Low Off-State Leakage Current 10μA

## Application

- Modem
- Telephone Equipment
- Security Equipment
- Sensing Equipment
- Automatic Test Equipment
- I/O Modules
- Electric Vehicle



DIP6-5



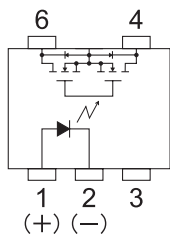
SMD6-5

PART NO	PACKAGE	PACKING
AA40-5	DIP6-5	Tube 50pcs
AA40F-5	SMD6-5	Tube 50pcs
AA40F-5-R1	SMD6-5	Reel 1000pcs

\* Package & PCB Layout Design, See Page 134

## Terminal Identification

### AA40(F)-5



- 1: Anode (LED)
- 2: Cathode (LED)
- 3: NC
- 4,6: Drain (MOS FET)

## Absolute Maximum Ratings 絕對最大定格 (Ambient Temperature 周圍溫度 : 25°C )

Item		Symbol	Value
Input 輸入	Continuous LED Current 連續 LED 電流	I <sub>F</sub>	50mA
	Peak LED Current LED 峰值電流 (f=100 Hz,Duty=1%)	I <sub>FP</sub>	500mA
	LED Reverse Voltage 逆向 LED 電壓	V <sub>R</sub>	5V
	Input Power Dissipation 輸入損耗	P <sub>IN</sub>	75mW
output 輸出	Load Voltage 負荷電壓	V <sub>L</sub>	1500V (AC peak or DC)
	Load Current 負荷電流 (mA)	I <sub>L</sub>	45
	Peak Load Current 峰值負荷電流 (1ms, 1 shot) (mA)	I <sub>PEAK</sub>	180
	Output Power Dissipation 輸出損耗 (mW)	P <sub>OUT</sub>	450
Total Power Dissipation 全損耗 (mW)		P <sub>T</sub>	500
I/O Breakdown Voltage 入 / 出力間絕緣電壓 (V <sub>rms</sub> )		V <sub>I/O</sub>	3750
I/O Breakdown Voltage 入 / 出力間絕緣電壓 (Suffix-H) (V <sub>rms</sub> )		V <sub>I/O</sub>	5000
Operating Temperature 使用時溫度		T <sub>OPR</sub>	-40°C ~ +85°C
Storage Temperature 保存溫度		T <sub>STG</sub>	-40°C ~ +100°C

## Recommended Operating Condition 建議使用條件 (Ambient Temperature 周圍溫度 : 25°C )

Item	Symbol	Number of used channels	MIN.	TYP.	MAX.	Units
Continuous LED Current 連續的 LED 電流	I <sub>F</sub>		8	10	20	mA
Load Voltage 負荷電壓	V <sub>L</sub>		---	---	600	V
Load Current 負荷電壓	I <sub>L</sub>		---	---	10	mA

## Electrical Specifications 電性規格 (Ambient Temperature 周圍溫度 : 25°C )

Item		Symbol	MIN.	TYP.	MAX.	Units	Conditions
Input 輸入	LED Forward Voltage LED 順向電壓	V <sub>F</sub>	1.0	1.17	1.5	V	I <sub>F</sub> =10mA
	Operation LED Current LED 動作電流	I <sub>F ON</sub>		0.8	5.0	mA	
	Recovery LED Voltage LED 復位電壓	V <sub>F OFF</sub>	0.5	1.0		V	
Output 輸出	On-Resistance 導通電阻 Drain to Drain	R <sub>ON</sub>		110	200	Ω	I <sub>F</sub> =10mA, I <sub>L</sub> =Rating (within 1sec.)
		R <sub>ON</sub>		180	300	Ω	I <sub>F</sub> =10mA, I <sub>L</sub> <5mA
	Off-State Leakage Current 開路狀態漏電流	I <sub>LEAK</sub>			10	μA	I <sub>F</sub> =0mA, V <sub>L</sub> =1500V
	Output Capacitance 輸出端容量	C <sub>OUT</sub>		83		pF	V <sub>L</sub> =0V, f=1MHz
Transmission 傳達	Turn-On Time 動作時間	T <sub>ON</sub>		0.2	1.0	ms	I <sub>F</sub> =10mA, I <sub>L</sub> =Rating
	Turn-Off Time 復位時間	T <sub>OFF</sub>		0.04	0.5	ms	
Coupled 結合	I/O Insulation Resistance 輸入 / 出間絕緣阻抗	R <sub>I/O</sub>	10 <sup>10</sup>			Ω	
	I/O Capacitance 輸入 / 力端靜電容量	C <sub>I/O</sub>		1.3		pF	f=1MHz

Note\*1 :

- \* The off-state leakage current value is for 25 degree C.
- \* In case a continual DC bias is applied between outputs , the output MOSFET may deteriorate due to the voltage. Please verify operation of the actual design before using, or contact your local sales representative.

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.

BRIGHT TOWARD INDUSTRIAL CO.,LTD.

40-5 Series. REV.12/2018

PhotomOS-FET Relays  
General-Purpose

PhotomOS-FET Relays  
Hi-A Grade ≥ 1A

PhotomOS-FET Relays  
Hi-V Grade ≥ 600V

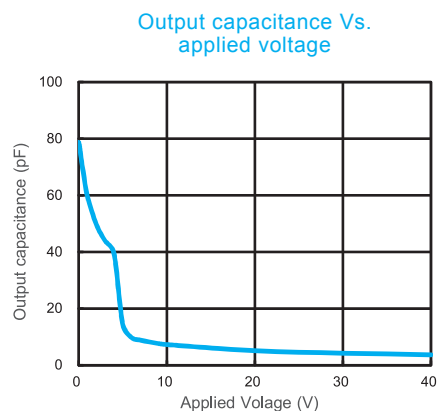
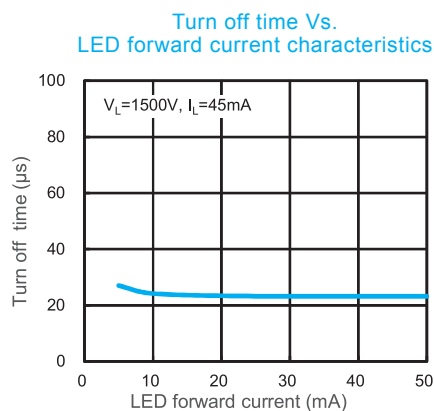
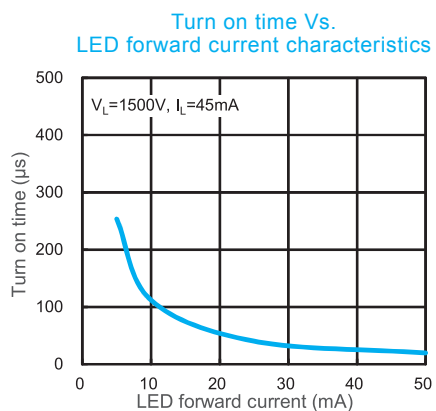
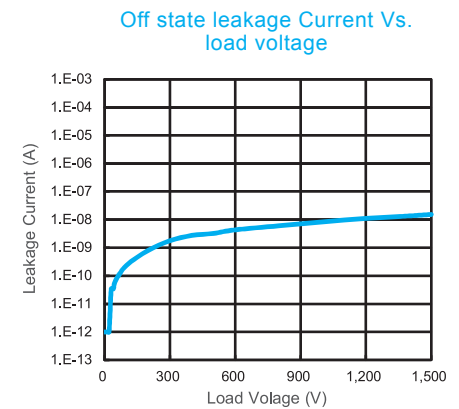
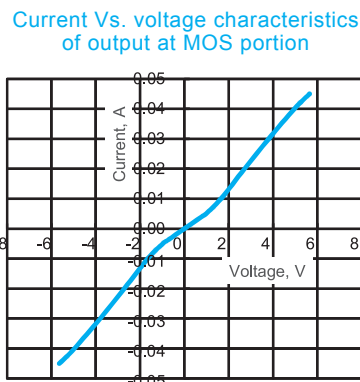
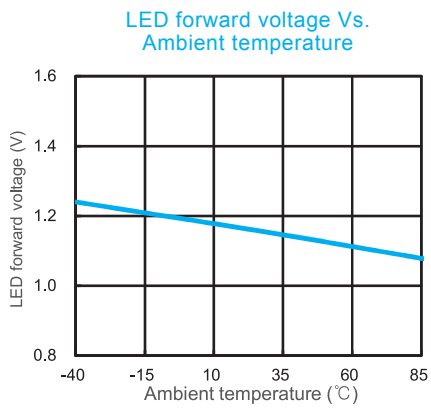
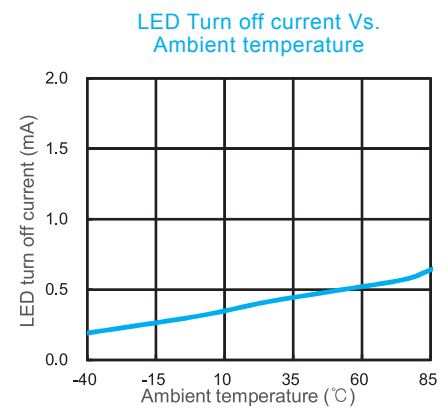
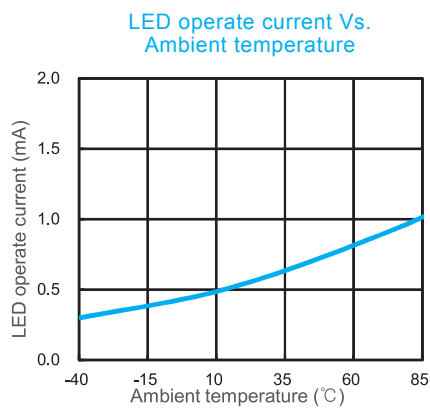
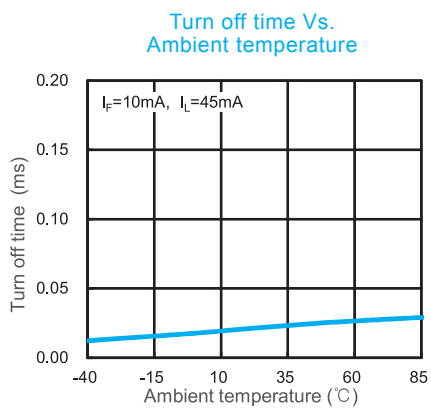
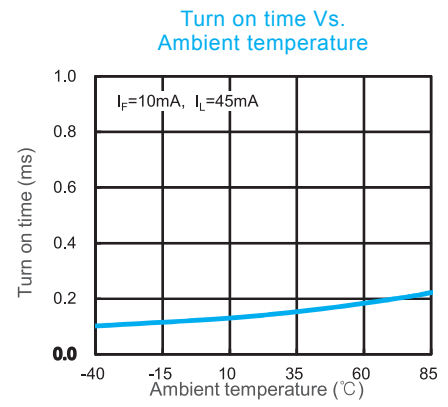
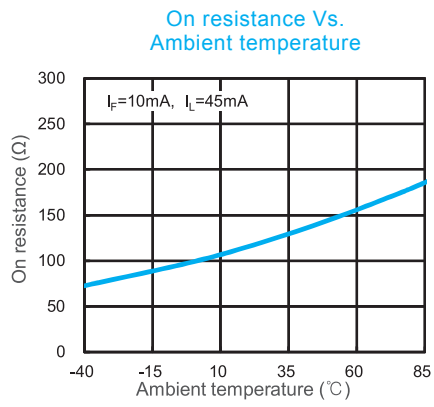
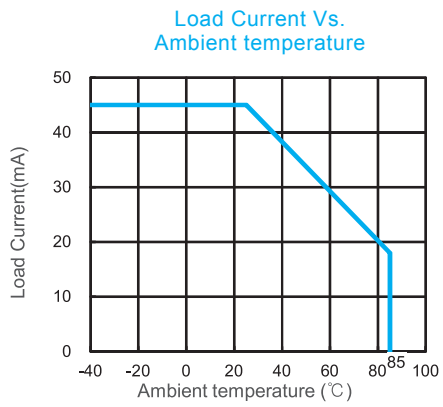
PhotomOS-FET Relays  
Low Leakage Current

PhotomOS-FET Relays  
RF

PhotomOS-FET Relays  
Photo Coupler

PhotomOS-FET Relays  
Mos Driver

PhotomOS-FET Relays  
Solid State Relays



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