

40-5 Series 1500V·1a

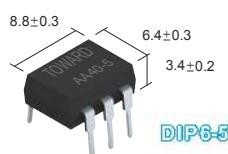


Features

- 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

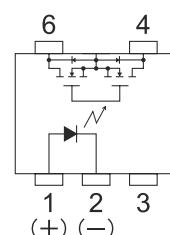


PART NO	PACKAGE	PACKING
AA40-5	DIP6-5	Tube 50pcs
AA40F-5	SMD6-5	Tube 50pcs
AA40F-5-R1	SMD6-5	Reel 1000pcs

* 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)

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.

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

Item		Symbol	Value
Input 輸入	Continuous LED Current 連續 LED 電流	I _F	50mA
	Peak LED Current LED 峰值電流 (f=100 Hz,Duty=1%)	I _{FP}	500mA
	LED Reverse Voltage 逆向 LED 電壓	V _R	5V
	Input Power Dissipation 輸入損耗	P _{IN}	75mW
output 輸出	Load Voltage 負荷電壓	V _L	1500V (AC peak or DC)
	Load Current 負荷電流 (mA)	I _L	45
	Peak Load Current 峰值負荷電流 (1ms,1 shot) (mA)	I _{PEAK}	180
	Output Power Dissipation 輸出損耗 (mW)	P _{OUT}	450
Total Power Dissipation 全損耗 (mW)		P _T	500
I/O Breakdown Voltage 入/出力間絕緣電壓 (Vrms)		V _{I/O}	3750
I/O Breakdown Voltage 入/出力間絕緣電壓 (Suffix-H) (Vrms)		V _{I/O}	5000
Operating Temperature 使用時溫度		T _{OPR}	-40°C ~ +85°C
Storage Temperature 保存溫度		T _{STG}	-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 _F		8	10	20	mA
Load Voltage 負荷電壓	V _L		---	---	600	V
Load Current 負荷電壓	I _L		---	---	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 _F	1.0	1.17	1.5	V	I _F =10mA
	Operation LED Current LED 動作電流	I _{F ON}		0.8	5.0	mA	
	Recovery LED Voltage LED 復位電壓	V _{F OFF}	0.5	1.0		V	
Output 輸出	On-Resistance 導通電阻 Drain to Drain		R _{ON}	110	200	Ω	I _F =10mA,I _L =Rating (within 1sec.)
	Off-State Leakage Current 開路狀態漏電流		R _{ON}	180	300	Ω	I _F =10mA,I _L <5mA
Transmission 傳達	Output Capacitance 輸出端容量		I _{LEAK}		10	μ A	I _F =0mA,V _L =1500V
	Turn-On Time 動作時間		C _{OUT}	83		pF	V _L =0V,f=1MHz
Coupled 結合	Turn-Off Time 復位時間		T _{ON}	0.2	1.0	ms	I _F =10mA,I _L =Rating
	I/O Insulation Resistance 輸入 / 出間絕緣阻抗		T _{OFF}	0.04	0.5	ms	
I/O Capacitance 輸入 / 力端靜電容量		R _{I/O}	10 ¹⁰			Ω	
		C _{I/O}		1.3		pF	f=1MHz

Note^{*1} :

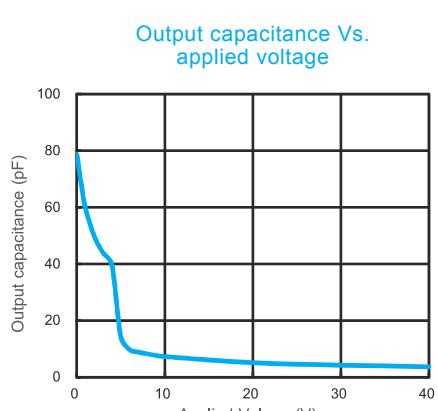
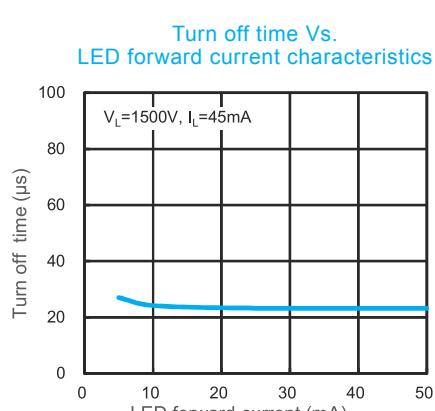
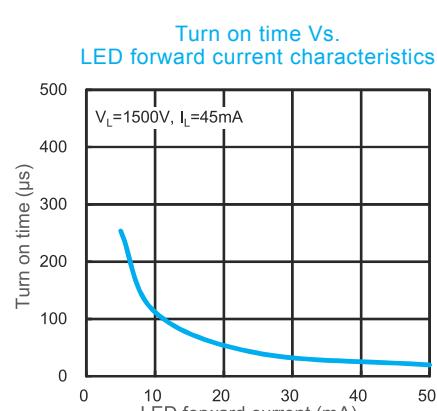
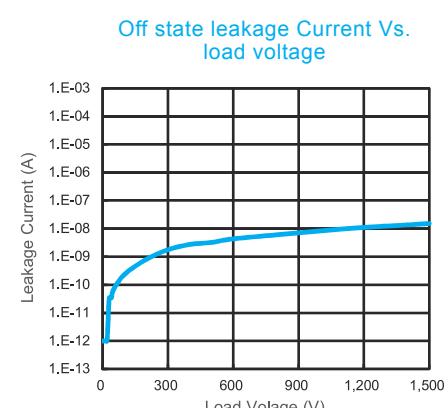
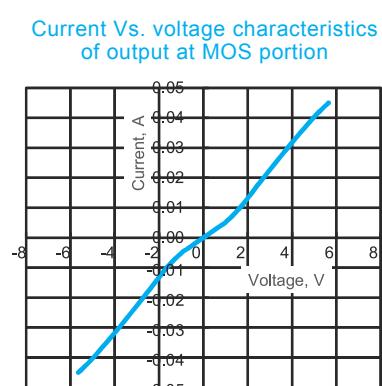
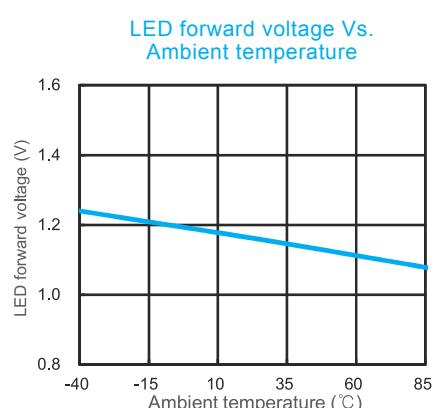
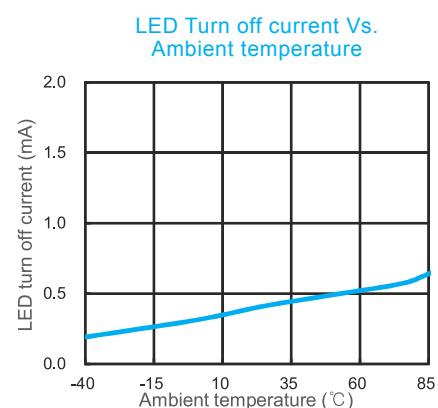
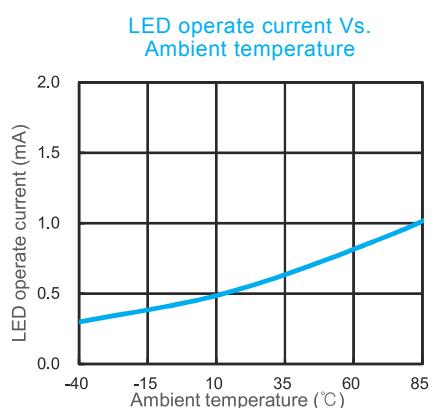
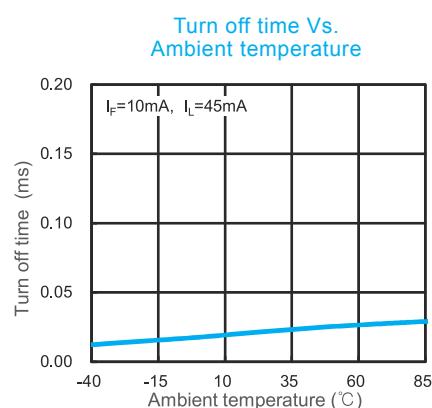
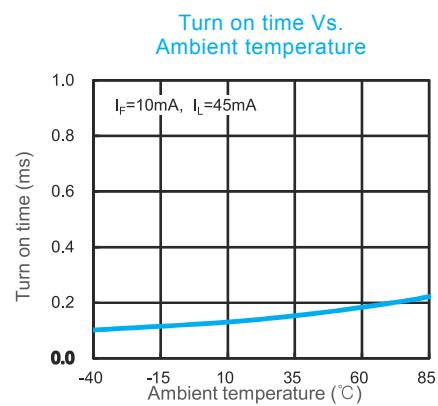
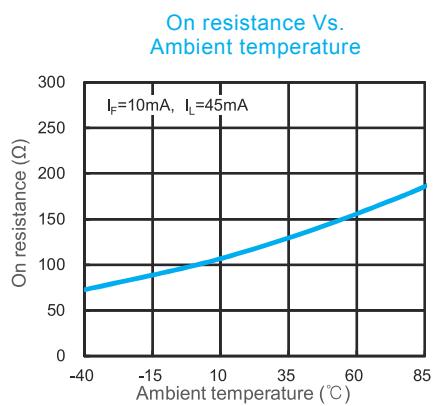
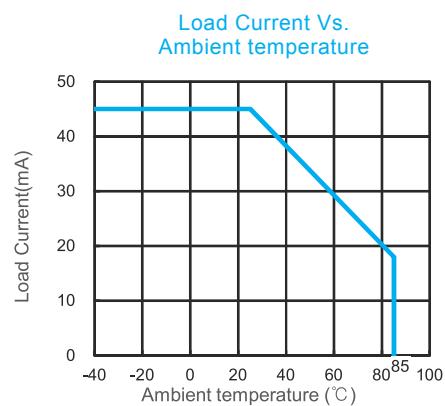
* The off-state leakage current value is for 25 degree C.

* 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.

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BRIGHT TOWARD INDUSTRIAL CO.,LTD.

40-5 Series. REV.12/2018



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