

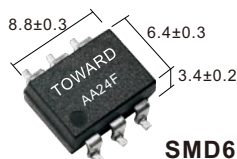
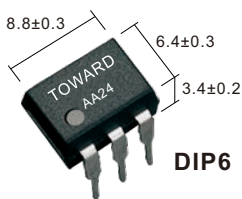
3.5A · 1a

Features

- Contact Form
- Load Voltage
- Operation LED Current
- Load Current
- On-Resistance
- Output Capacitance
- Low Off-State Leakage Current
- Suffix -H for DIP/SMD I/O Breakdown Voltage

- 1a
- 40 V Max.
 - 3.0mA Max.
 - 3.5A Max.
 - 0.045Ω Typ.
 - 810 pF Typ.
 - 1.0μA Max.
 - 5000Vrms Min.

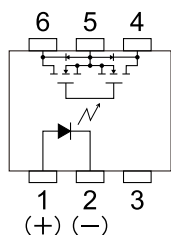
Outline:(Unit:mm) pitch:2.54 mm



Terminal Identification 電路結構圖

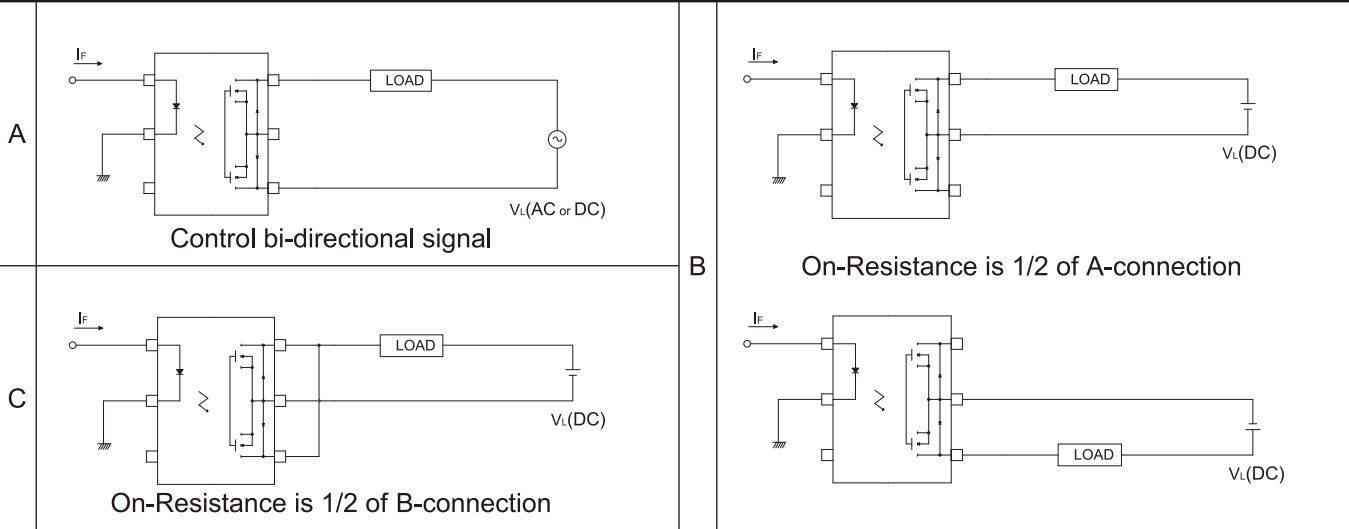
Terminal Identification
回路結構圖

AA24(F)



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

Connection
接續方法



PhotoDMOS-FET Relay
Hi-Current

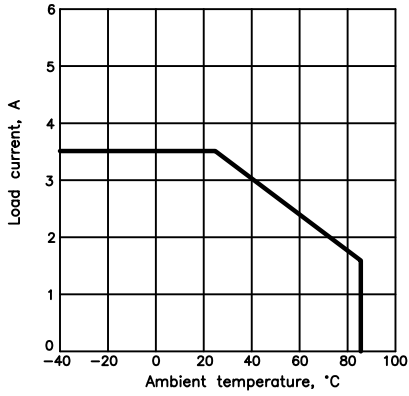
Absolute Maximum Ratings 絕對最大定格 (Ambient Temperature 周圍溫度 : 25°C)

Item		Symbol	Value
Input 輸入	Continuous LED Current 連續的LED電流	I _F	50mA
	Peak LED Current LED的峰值電流(f=100 Hz, duty=1%)	I _{FP}	500mA
	LED Reverse Voltage 逆向的LED電壓	V _R	5V
	Input Power Dissipation 容許損失	P _{In}	75mW
Output 輸出	Load Voltage 負荷電壓	V _L	40V (AC peak or DC)
	Load Current 負荷電流 (A)	I _L	A 3.5A(AC or DC)
			B 4.5A(DC)
			C 6A(DC)
	Peak Load Current 峰值負荷電流 (1 ms, 1 shot) (A)	I _{Peak}	8.0A
Output Power Dissipation 電流損耗 (mW)	P _{Out}	500mW	
Total Power Dissipation 全損耗 (mW)		P _T	550mW
I/O Breakdown Voltage 入/出力間絕緣電壓		V _{I/O}	3750Vrms
Operating Temperature 使用時周圍溫度		T _{Opr}	-40°C ~ +85°C
Storage Temperature 周圍保存溫度		T _{Stg}	-40°C ~ +100°C

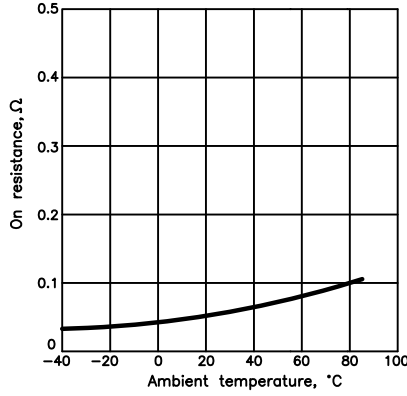
Electrical Specifications LED順向電壓(Ambient Temperature 周圍溫度 : 25°C)

Item		Symbol	MIN.	TYP.	MAX.	Units	Conditions
Input 輸入	LED Forward Voltage LED順向電壓	V _F	1.0	1.37	1.5	V	I _F =10mA
	Operation LED Current LED的動作電流	I _{F On}		1.5	3.0	mA	
	Recovery LED Voltage LED的恢復電壓	V _{F Off}	0.5	1.2		V	
Output 輸出	On-Resistance 導通電阻 Drain to Drain	R _{On}		0.045	0.07	Ω	I _F =10mA, I _L =Rating Time to flow is within 1sec.
	Off-State Leakage Current 開路狀態時的電流	I _{Leak}			1.0	μA	I _F =0mA, V _L =40V
	Output Capacitance 輸出端容量	C _{Out}		810		pF	V _L =0V, f=1MHz
Transmission 傳達	Turn-On Time 動作時間	T _{On}		1.8	5.0	ms	I _F =10mA, I _L =Rating
	Turn-Off Time 復位時間	T _{Off}		0.03	0.5	ms	
Coupled 結合	I/O Insulation Resistance 輸入/出間的絕緣阻抗	R _{I/O}	5*10 ⁹			Ω	
	I/O Capacitance 輸入/力端的靜電容量	C _{I/O}		1		pF	f=1MHz

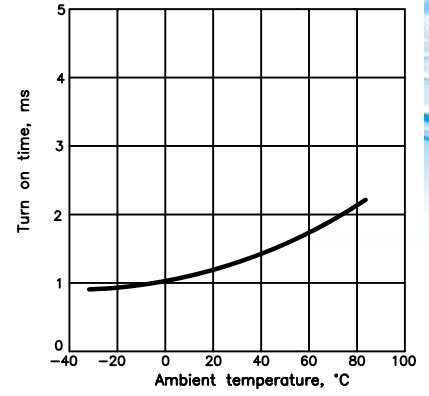
Load current Vs. Ambient temperature



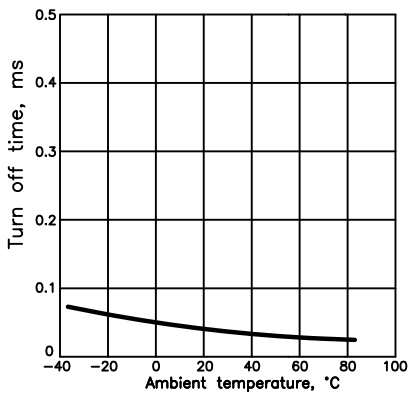
On resistance Vs. Ambient temperature



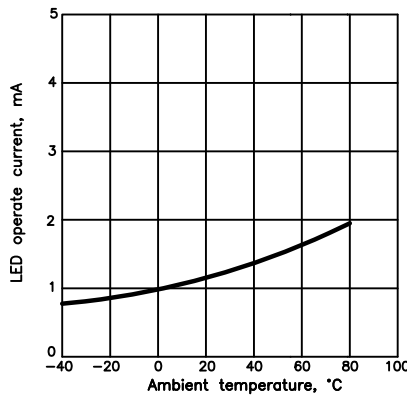
Turn on time Vs. Ambient temperature



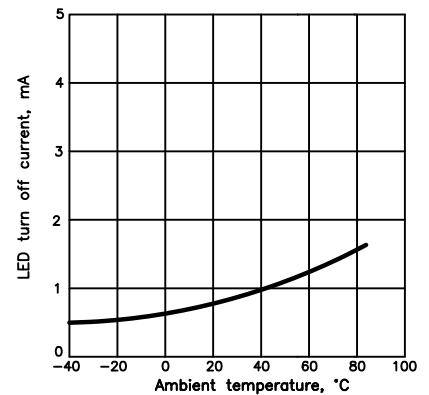
Turn off time Vs. Ambient temperature



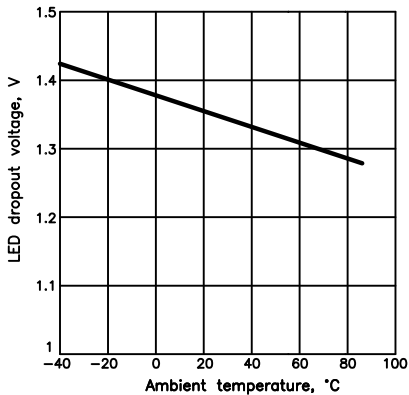
LED operate current Vs. Ambient temperature



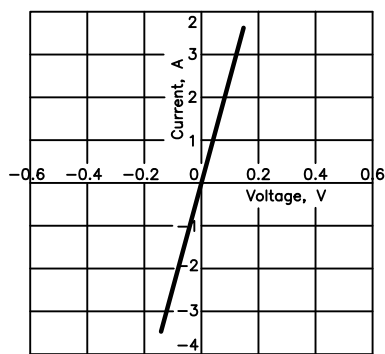
LED Turn off current Vs. Ambient temperature



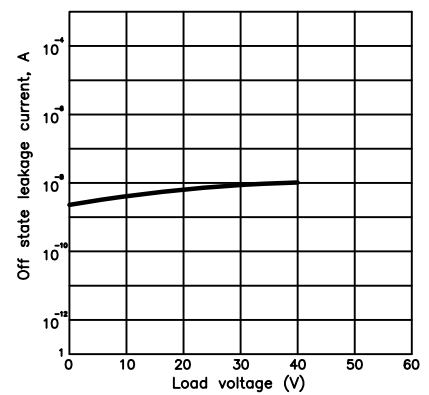
LED forward voltage Vs. Ambient temperature



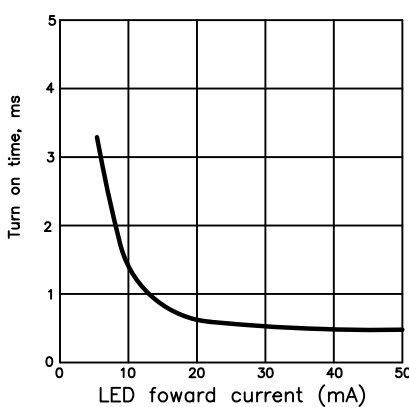
Voltage Vs. current characteristics of output at MOS portion



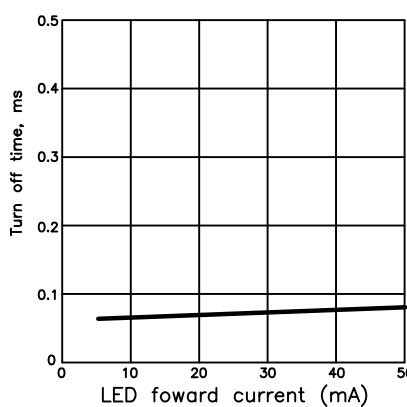
Off state leakage current Vs. Load voltage characteristics



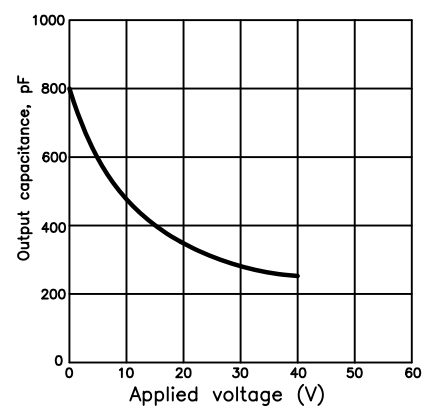
LED forward current Vs. turn on time characteristics



LED forward current Vs. turn off time characteristics


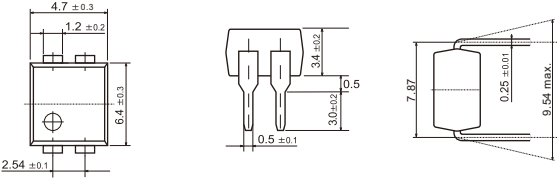
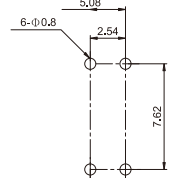

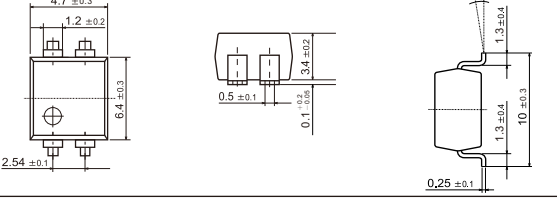
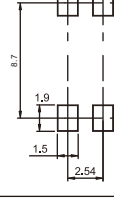

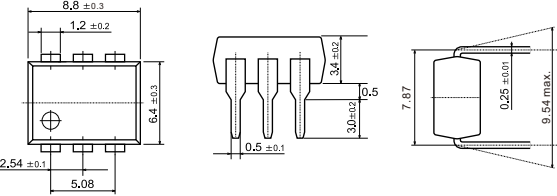
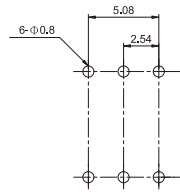
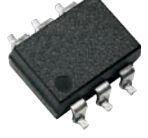
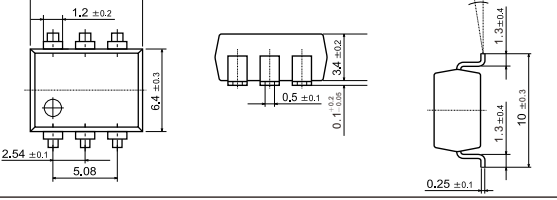
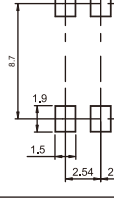

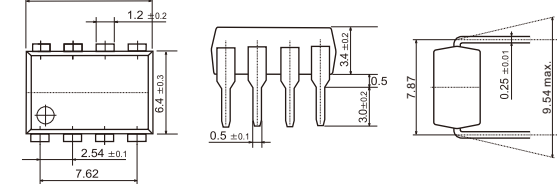
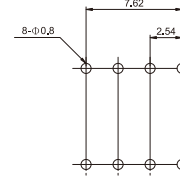

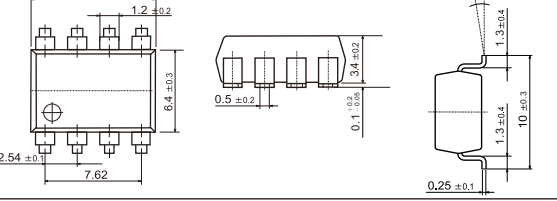
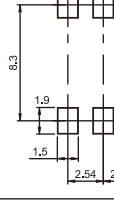

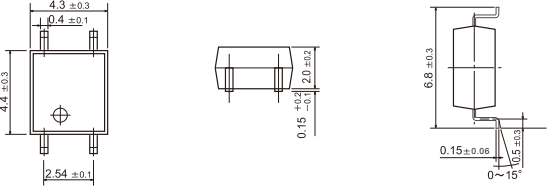
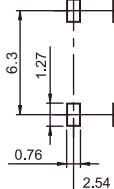
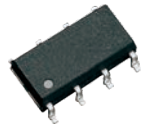
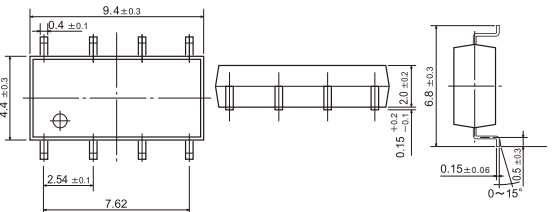
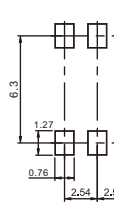


Applied voltage Vs. output capacitance characteristics

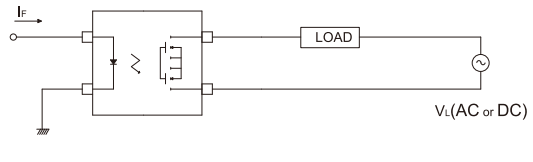
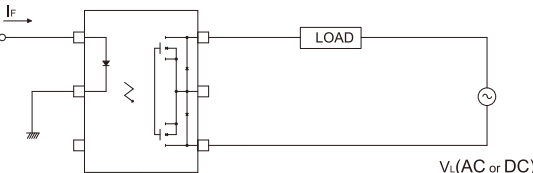
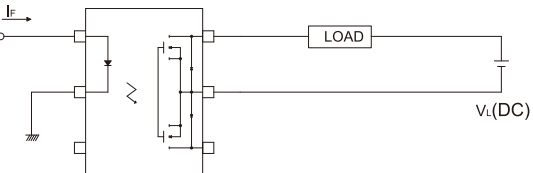
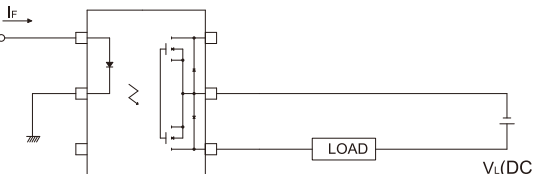
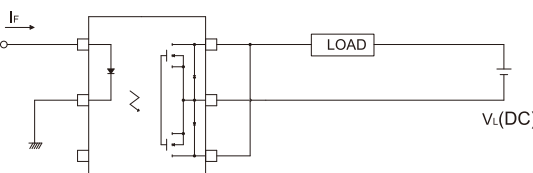
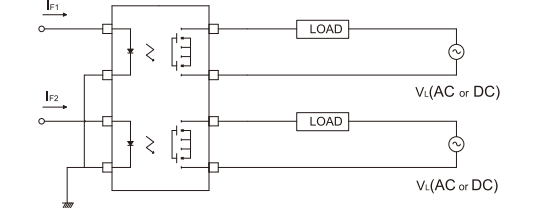
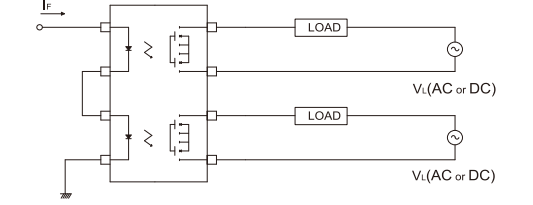


PhotoDMOS-FET Relay
Hi-Current

Package & PC Board Pattern

Package 包裝	Dimensions 外型尺寸圖	PC Board pattern PC 板加工圖
 <p>DIP4</p>		 <p>(Bottom View)</p>
 <p>SMD4</p>		 <p>(Top View)</p>
 <p>DIP6</p>		 <p>(Bottom View)</p>
 <p>SMD6</p>		 <p>(Top View)</p>
 <p>DIP8</p>		 <p>(Bottom View)</p>
 <p>SMD8</p>		 <p>(Top View)</p>
 <p>SOP4</p>		 <p>(Top View)</p>
 <p>SOP8</p>		 <p>(Top View)</p>

Load Connecting Method

Type 類型	Load 負荷	Connection 接續方法	Feature 特長
4pin	AC or DC		Control bi-directional signal 可控制雙向信號
6pin	A AC or DC		Control bi-directional signal 可控制雙向信號
	B DC		On-Resistance is 1/2 of A-connection 導通電阻值是A接法的1/2
			2-Make-contacts (Source Common)
C DC		On-Resistance is 1/2 of B-connection 導通電阻值是B接法的1/2	
8pin	AC or DC		2 input and 2 output 2入力和2出力回路
			1 input and 2 output 1入力和2出力回路