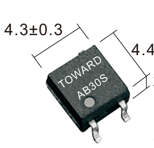
400V · 1a/2a

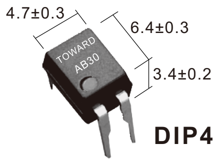
Features

• **Contact Form**	1a / 2a
• **Load Voltage**	400V Max.
• **Operation LED Current**	3.0mA Max.
• **Load Current**	120mA Max.
• **On-Resistance**	24Ω Typ.
• **Output Capacitance**	100pF Typ.
• **Low Off-State Leakage Current**	1.0μA Max.
• **Suffix -H for DIP/SMD I/O Breakdown Voltage**	5000Vrms Min.
• **Suffix -H for SOP I/O Breakdown Voltage**	3750Vrms Min.

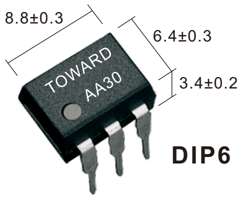
Outline:(Unit:mm) pitch:2.54 mm



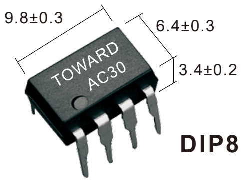
SOP4



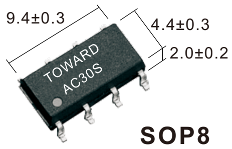
DIP4



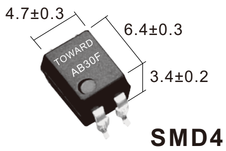
DIP6



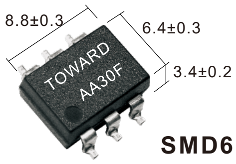
DIP8



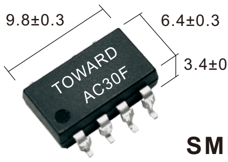
SOP8



SMD4



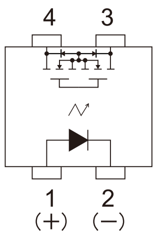
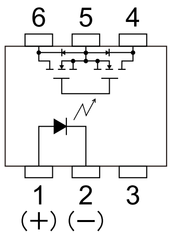
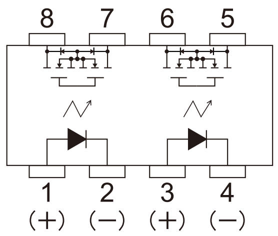
SMD6



SMD8

Terminal Identification電路結構圖

Terminal Identification

AB30(F)(S)	AA30(F)	AC30(F)(S)
		
1: Anode (LED) 2: Cathode (LED) 3,4: Drain (MOS FET)	1: Anode (LED) 2: Cathode (LED) 3: NC 4,6: Drain (MOS FET) 5: Source (MOS FET)	1,3: Anode (LED) 2,4: Cathode (LED) 5,6,7,8: Drain (MOS FET)

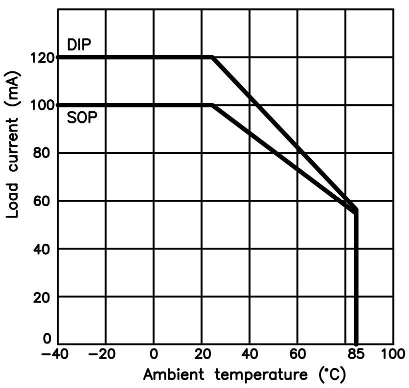
Absolute Maximum Ratings 絕對最大定格 （Ambient Temperature 周圍溫度 ：25℃）

Item		Symbol	Value				
Outline Package			SOP 4/8		DIP 4/8 SMD 4/8		DIP 6 SMD 6
			1CH	2CH	1CH	2CH	1CH
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	400V (AC peak or DC)				
	Load Current 負荷電流 (mA)	I_L	100	85	120	100	120
	Peak Load Current 峰值負荷電流 （1 ms,1 shot） (mA)	I_{Peak}	600	600	600	600	600
	Output Power Dissipation 電流損耗 (mW)	P_{Out}	300	450	450	600	450
Total Power Dissipation 全損耗 (mW)		P_T	350	500	500	650	500
I/O Breakdown Voltage 入/出力間絕緣電壓 (Vrms)		$V_{I/O}$	1500	1500	3750	3750	3750
Operating Temperature 使用時周圍溫度		T_{Opr}	-40℃ ～ +85℃				
Storage Temperature 周圍保存溫度		T_{Stg}	-40℃ ～ +100℃				

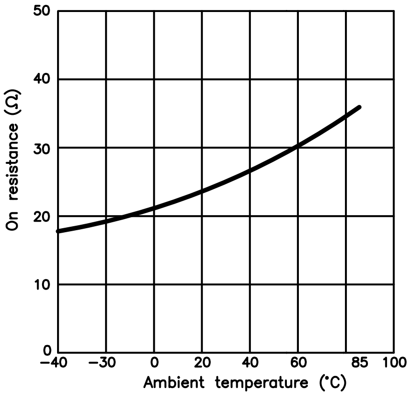
Electrical Specifications LED順向電壓（Ambient Temperature 周圍溫度：25℃）

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的動作電流	$I_{F\ On}$		0.9	3.0	mA	
	Recovery LED Voltage LED的恢復電壓	$V_{F\ Off}$	0.5	1.0		V	
Output 輸出	On-Resistance 導通電阻 Drain to Drain	R_{On}		24	30	Ω	I_F=5mA,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	V_L=400V
	Output Capacitance 輸出端容量	C_{Out}		100		pF	V_L=0V, f=1MHz
Transmission 傳達	Turn-On Time 動作時間	T_{On}		0.25	0.5	ms	I_F=5mA I_L=Rating (for SOP type)
	Turn-Off Time 復位時間	T_{Off}		0.04	0.2	ms	
	Turn-On Time 動作時間	T_{On}		0.2	1.0	ms	I_F=10mA, I_L=Rating (for DIP/SMD type)
	Turn-Off Time 復位時間	T_{Off}		0.05	0.5	ms	
Coupled 結合	I/O Insulation Resistance 輸入/出間的絕緣阻抗	$R_{I/O}$	10^9			Ω	
	I/O Capacitance 輸入/力端的靜電容量	$C_{I/O}$		1.3		pF	f=1MHz

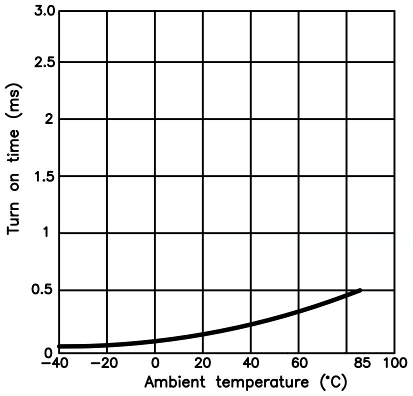
Load current Vs.
Ambient temperature



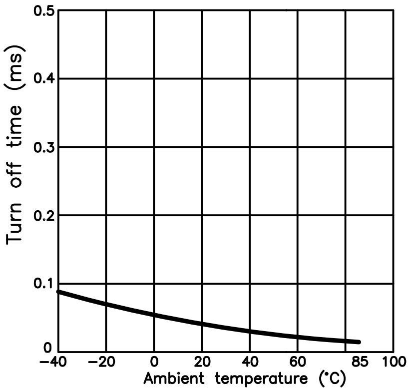
On resistance Vs.
Ambient temperature



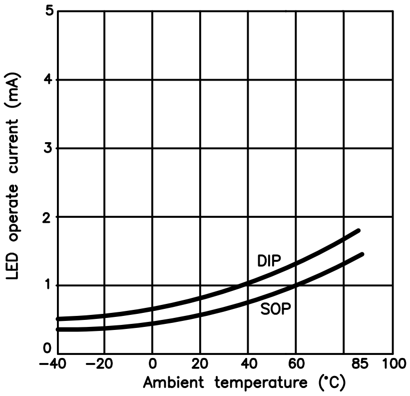
Turn on time Vs.
Ambient temperature



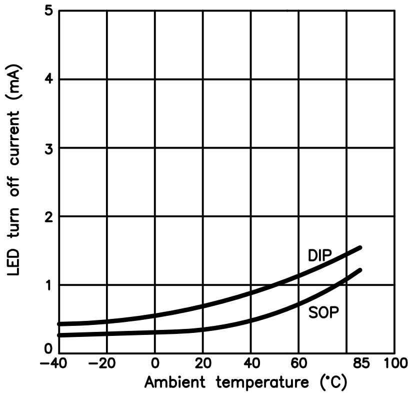
Turn off time Vs.
Ambient temperature



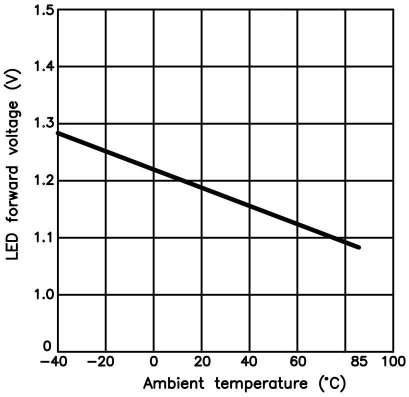
LED operate current Vs.
Ambient temperature



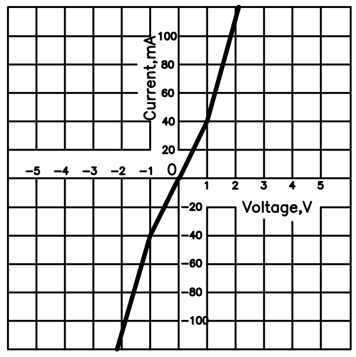
LED Turn off current Vs.
Ambient temperature



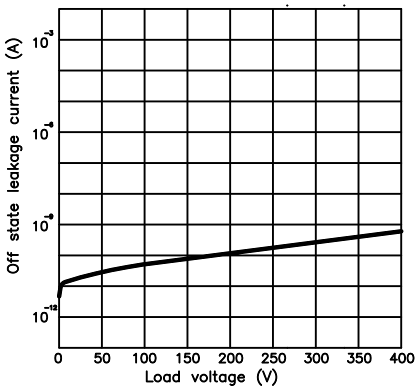
LED forward voltage Vs.
Ambient temperature



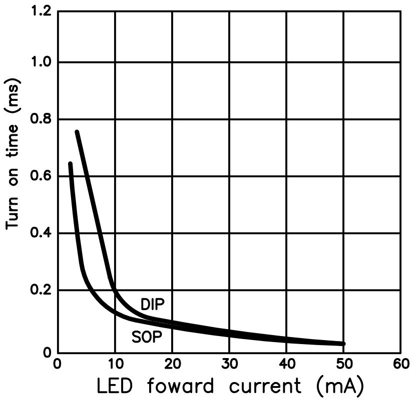
Voltage Vs. current characteristics
of output at MOS portion



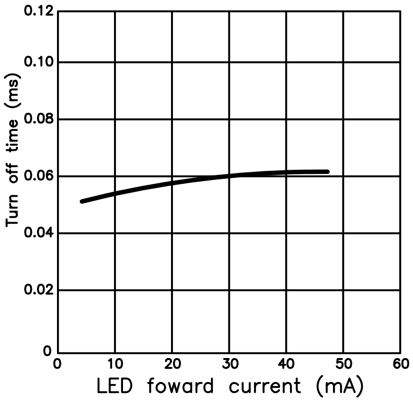
Off state leakage current



LED foward current Vs.
turn on time characteristics



LED foward current Vs.
turn off time characteristics



Applied voltage Vs.
output capacitance characteristics