



53 series 3300V · 1a

(SiC MOSFET) PRELIMINARY

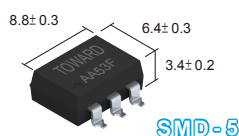
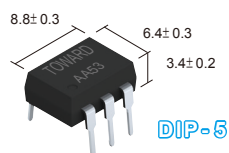


Features

- Contact Form 1a
- Load Voltage 3300V
- Operation LED Current 5.0mA
- Load Current 300mA
- On-Resistance 3.2 Ω
- Output Capacitance 110pF
- Low Off-State Leakage Current 50μA

Application

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

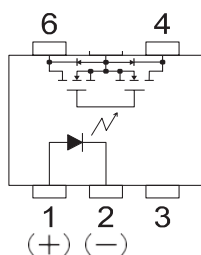


PART NO	PACKAGE	PACKING
AA53	DIP-5	Tube 50pcs
AA53F	SMD-5	Tube 50pcs
AA53F-R1	SMD-5	Reel 1000pcs

* Package & PCB Layout Design, See Page 134

Terminal Identification

AA53(F)



- 1: Anode (LED)
- 2: Cathode (LED)
- 3: NC
- 4: Drain (MOSFET)
- 6: Drain (MOSFET)

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 _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	3300V (AC peak or DC)
	Load Current 負荷電流 (mA)	I _L	300
	Peak Load Current 峰值負荷電流 (1ms, 1shot) (mA)	I _{PEAK}	900
	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 輸入/出力間絕緣電壓 (Vrms)		V _{I/O}	3750
I/O Breakdown Voltage 輸入/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

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	1.33	1.5	V	I _F =10mA
	Operation LED Current LED 動作電流	I _{F ON}		1.4	5.0	mA	
	Recovery LED Voltage LED 復位電壓	V _{F OFF}	0.5	1.2		V	
Output 輸出	On-Resistance 導通電阻 Drain to Drain	R _{ON}		3.2	5	Ω	I _F =10mA, I _L =Rating (within 1sec.)
	Off-State Leakage Current *1 開路狀態漏電流(註1)	I _{LEAK}			50	μA	V _L =3300V
	Output Capacitance 輸出端容量	C _{OUT}		110		pF	V _L =0V, f=1MHz
Transmission 傳達	Turn-On Time 動作時間	T _{ON}		0.7	3.0	ms	I _F =10mA, I _L =Rating
	Turn-Off Time 復位時間	T _{OFF}		0.15	1.0	ms	
Coupled 結合	I/O Insulation Resistance 輸入/ 出間絕緣阻抗	R _{I/O}	10 ¹⁰			Ω	
	I/O Capacitance 輸入/ 力端靜電容量	C _{I/O}		1.3		pF	f=1MHz

RF PhotoCoupler MosDriver

Note *1 : The leakage current value is for 25 degree C. If need more detailed information, please contact your local sales representative.