

53 SERIES

SiC MOSFET 3300V.1a



APPLICATIONS

BMS

Battery Management System

ESS

Energy Storage System

ATE

Automatic Test Equipment

HVS

High Voltage Switching

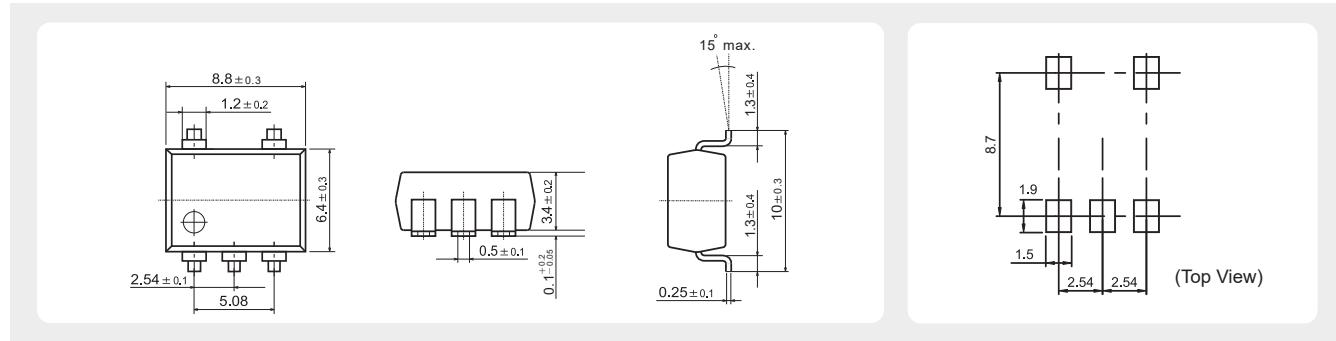
SPECIFICATIONS

ITEM	PERFORMANCE CHARACTERISTICS
Contact Form	1a
Load Voltage	V _L 3300V
Operation LED Current	I _{F ON} 5.0mA
Load Current	I _L 300mA
On-Resistance	R _{ON} 3.5Ω
Output Capacitance	C _{OUT} 220pF
Low Off-State Leakage Current	I _{LEAK} 1μA

PIN DESCRIPTION & PART NUMBER

CIRCUIT DIAGRAM	PIN DESCRIPTION	PART NO.	PACKAGE	PACKING
	1: Anode (+) • LED 2: Cathode (-) • LED 3: NC 4: Drain • MOSFET 6: Drain • MOSFET	AA53 AA53F AA53F-R1	DIP6-5 SMD6-5 SMD6-5	Tube 50pcs Tube 50pcs Reel 1000pcs

DIMENSIONS & PC BOARD PATTERN



ABSOLUTE MAXIMUM RATINGS (Ambient Temperature 周圍溫度 : 25°C)

ITEM		CONDITION	SYMBOL	VALUE	UNIT
Input 輸入	Continuous LED Current 連續 LED 電流		I _F	50	mA
	Peak LED Current LED 峰值電流	100 Hz, Duty 1%	I _{FP}	500	mA
	LED Reverse Voltage 逆向 LED 電壓		V _R	5	V
	Input Power Dissipation 輸入損耗		P _{IN}	75	mW
Output 輸出	Load Voltage 負荷電壓		V _L	3300 (AC peak or DC)	V
	Load Current 負荷電流		I _L	300	mA
	Peak Load Current 峰值負荷電流	10 ms, 1 shot	I _{PEAK}	900	mA
	Output Power Dissipation 輸出損耗		P _{OUT}	550	mW
Relay 繼電器	Total Power Dissipation 全損耗		P _T	600	mW
	I/O Breakdown Voltage 輸入/出力間絕緣電壓		V _{I/O}	5000	V _{rms}
	Operating Temperature 使用時溫度		T _{OPR}	-40 ~ +105	°C
	Storage Temperature 保存溫度		T _{STG}	-40 ~ +100	°C

ELECTRICAL SPECIFICATIONS (Ambient Temperature 周圍溫度 : 25°C)

ITEM		CONDITION	SYM.	MIN.	TYP.	MAX.	UNIT
Input 輸入	LED Forward Voltage LED 順向電壓	I _F =10mA	V _F	1.0	1.33	1.5	V
	Operation LED Current LED 動作電流		I _{F ON}		2.4	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 (Tested within 1 sec.)	I _F =10mA, I _L =Rating	R _{ON}		3.5	5	Ω
	Off-State Leakage Current 開路狀態漏電流	V _L =3300V	I _{LEAK}			1	μA
	Output Capacitance 輸出端容暈	V _L =0V, f=1 MHz	C _{OUT}		220		pF
Transmission 傳達	Turn-On Time 動作時間	I _F =10mA, I _L =Rating	T _{ON}		1.0	3.0	ms
	Turn-Off Time 復位時間		T _{OFF}		0.05	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	f=1MHz	C _{I/O}		1.3		pF

REFERENCE DATA

