

Photovoltaic

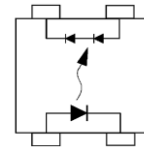
1CH 2.5KViso 8.3V 14uA SOP-4

PVD1258V314S4

MERITEK

FEATURE

- Solid-State Reliability
- Isolation Voltage: 2500 Vrms
- Application: MOSFET Driver, Programmable Controller, Process Control, Solid State Relay, Isolated Switching, Isolated Power Supply
- In Accordance with Safety Class UL1577 Standard



MAXIMUM RATINGS

Parameter		Symbol	Value	Unit
Input Forward Current		I_F	2~50	mA
Input Peak Forward Current	$f=100\text{Hz}$, Duty=1%	I_{FP}	1	A
Input Reverse Voltage		V_R	5	V
Input Power Dissipation		P_I	75	mW
Maximum Output Forward Voltage		V_{FO}	8	V
Maximum Output Reverse Current		I_{RO}	10	μA
Isolation Voltage	AC for 60sec, RH60%	V_{ISO}	2500	V_{RMS}
Operating Temperature Range		T_{Opr}	-40~+85	$^{\circ}\text{C}$
Storage Temperature Range		T_{Stg}	-40~+125	$^{\circ}\text{C}$
Soldering Temperature	10 seconds Max.	T_{Sol}	260	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

Input Characteristics		Conditions	Symbol	Min	Typ.	Max	Unit
Forward Voltage		$I_F=20\text{mA}$	V_F	--	1.2	1.4	V
Operation LED Current		$V_{OC}=5\text{V}$	$I_{F,On}$	--	0.5	5.0	mA
Recovery LED Current		$V_{OC}=1\text{V}$	$I_{F,Off}$	0.2	--	0.5	mA
Input Reverse Current		$V_R=5\text{V}$	I_R	--	--	10	μA
Output Characteristics		Conditions	Symbol	Min	Typ.	Max	Unit
Short Circuit Current		$I_F=10\text{mA}$, $R_L=100\Omega$	I_{SC}	5.0	14.0	--	μA
Open Circuit Voltage		$I_F=10\text{mA}$, $R_L=100\Omega$	V_{OC}	5.0	8.3	--	V
Coupled Characteristics		Conditions	Symbol	Min	Typ.	Max	Unit
Isolation Resistance		$V_{IO}=500V_{DC}$	R_{ISO}	10^{10}	--	--	Ω
Isolation Capacitance		$f=1\text{MHz}$	C_{ISO}	--	0.1	--	pF
Turn-On Time	$I_F=10\text{mA}$, $C_L=1000\text{pF}$		t_{On}	--	0.8	--	ms
Turn-Off Time			t_{Off}	--	0.1	--	

Note: $T_A=25^{\circ}\text{C}$ unless otherwise noted.

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DIMENSIONS

Item	Min (mm)	Max (mm)
A1	0.00	0.20
A2	1.80	2.20
b	0.30	0.50
D	4.10	4.50
e	2.54	
E	6.40	7.20
E1	4.20	4.60
L	0.46	0.86
X	0.80	
X1	2.54	
Y	1.20	
Y1	7.20	
Z	0.93	

Note:

1.LED Anode;2.LED Cathode; 3.PVG(+); 4 PVG(-)

