

Photovoltaic

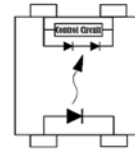
1CH 2.5KViso 8V 12uA SOP-4

PVD1258V012S4

MERITEK

FEATURE

- Isolated Floating Output
- Isolation Voltage: 2500 Vrms
- High-Speed Switching
- Integrated Turn-Off Circuitry
- Application: MOSFET and IGBT 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	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
Isolation Voltage	AC for 60sec, RH60%	V_{ISO}	2500	V_{RMS}
Operating Temperature Range		T_{Opr}	-40~+85	°C
Storage Temperature Range		T_{Stg}	-40~+100	°C

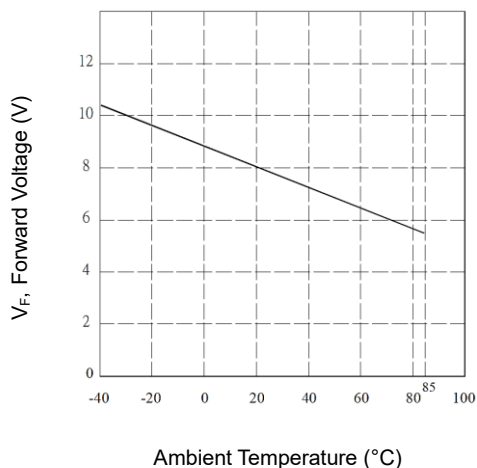
ELECTRICAL CHARACTERISTICS

Input Characteristics		Conditions	Symbol	Min	Typ.	Max	Unit
Forward Voltage		$I_F=10\text{mA}$	V_F	--	1.3	1.6	V
Operation LED Current		$V_{OC}=5\text{V}$	$I_{F,On}$	--	0.50	3.00	mA
Recovery LED Current		$V_{OC}=1\text{V}$	$I_{F,Off}$	--	0.35	0.50	mA
Output Characteristics		Conditions	Symbol	Min	Typ.	Max	Unit
Short Circuit Current		$I_F=10\text{mA}$	I_{SC}	12	--	--	μA
Open Circuit Voltage		$I_F=10\text{mA}$	V_{OC}	6	8	--	V
Coupled Characteristics		Conditions	Symbol	Min	Typ.	Max	Unit
Resistance from Input to Output		$V_{IO}=500V_{DC}$	R_{IO}	10^{10}	--	--	Ω
Capacitance from Input to Output		$f=1\text{MHz}$	C_{IO}	--	0.8	1.5	pF
Turn-On Time		$I_F=10\text{mA}$, $C_L=250\text{pF}$	t_{On}	--	0.02	--	ms
Turn-Off Time			t_{Off}	--	0.02	--	

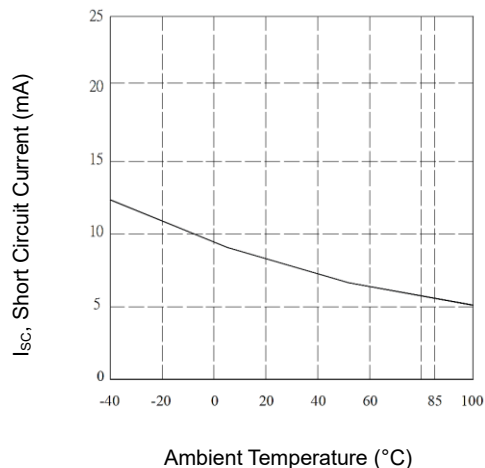
Note: $T_A=25^\circ\text{C}$ unless otherwise noted.

CHARACTERISTIC CURVES

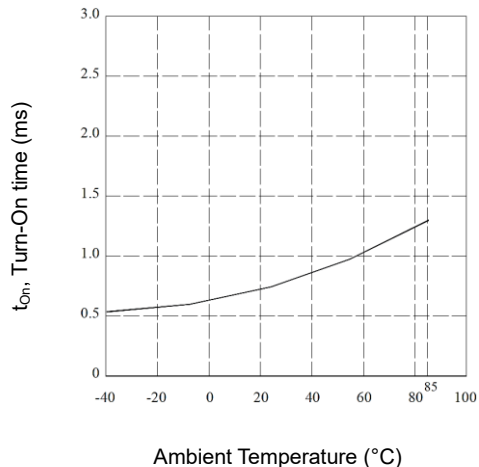
Forward Voltage vs. Temperature



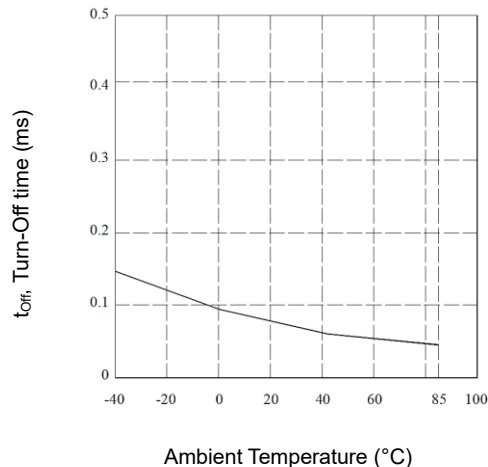
Short Circuit Current vs Temperature



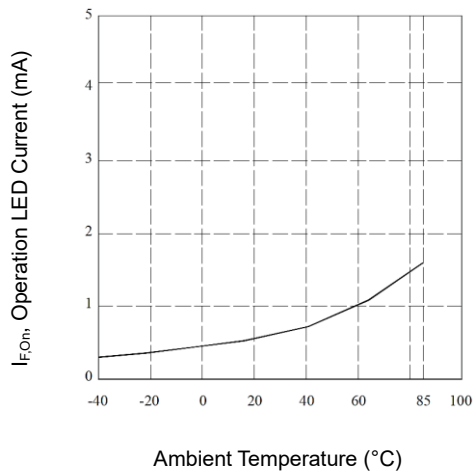
Turn-On Time vs. Temperature



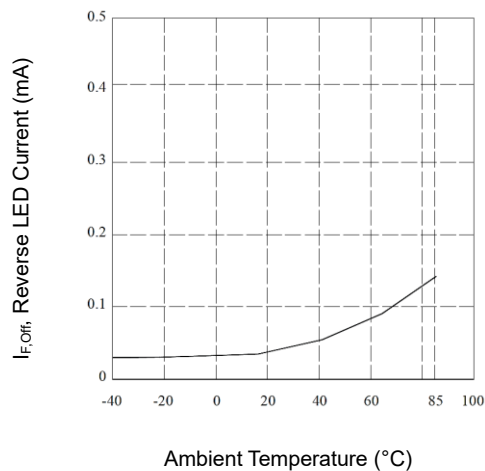
Turn-Off Time vs. Temperature



Operation LED Current vs. Temperature

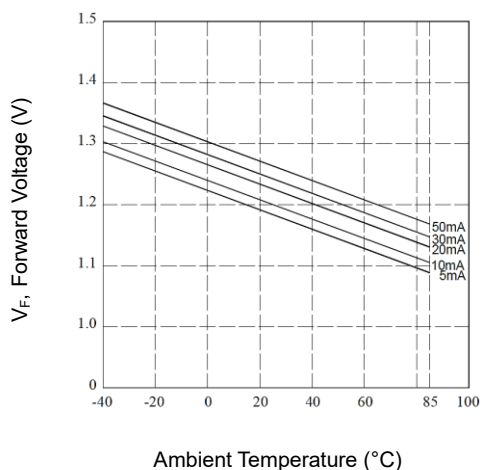


Recovery LED Current vs. Temperature

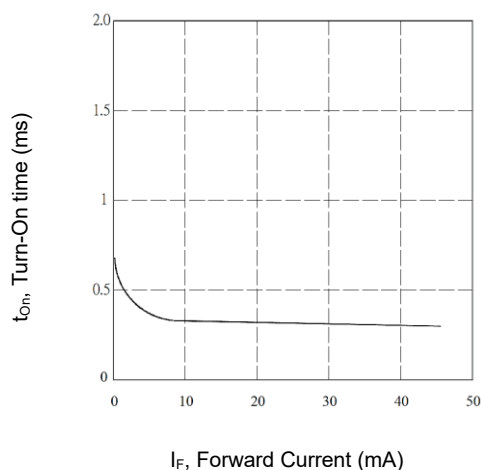


CHARACTERISTIC CURVES

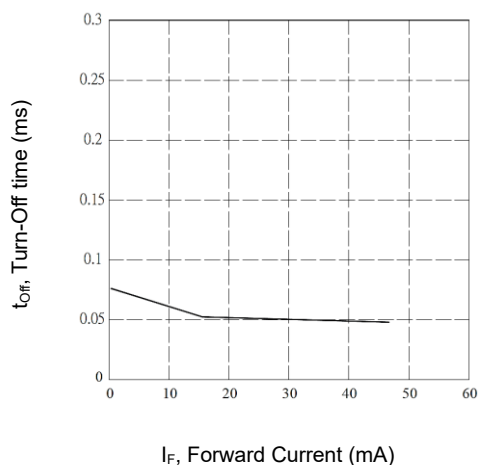
Forward Voltage vs. Temperature



Turn-On Time vs. Forward Current



Turn-Off Time vs. Forward Current



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.Cathode; 4 Anode

