
PoE SURGE PROTECTION DEVICE

General Description

PD1000EE-WM is a surge protection device designed to deliver high-level surge protection for signal lines. With a GDT + SAD protection architecture, it integrates both shunt and parallel protection devices to provide robust protection for connected equipment, even in applications without secondary board-level protection.

Features

- ◆ Gigabit PoE (802.3af/at/bt)
- ◆ Protect all Surge Test Mode
- ◆ IEC 61643-21
- ◆ IEC 61000-4-5
- ◆ ITU-T K.21



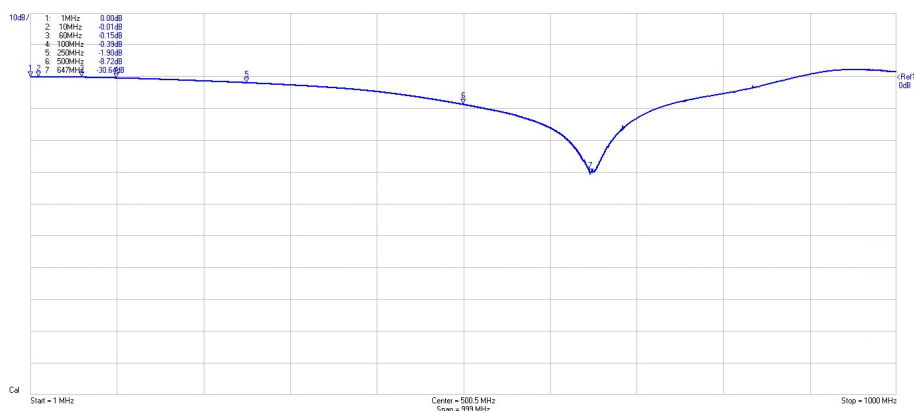
Fig.1 Appearance

DEVICE CHARACTERISTICS

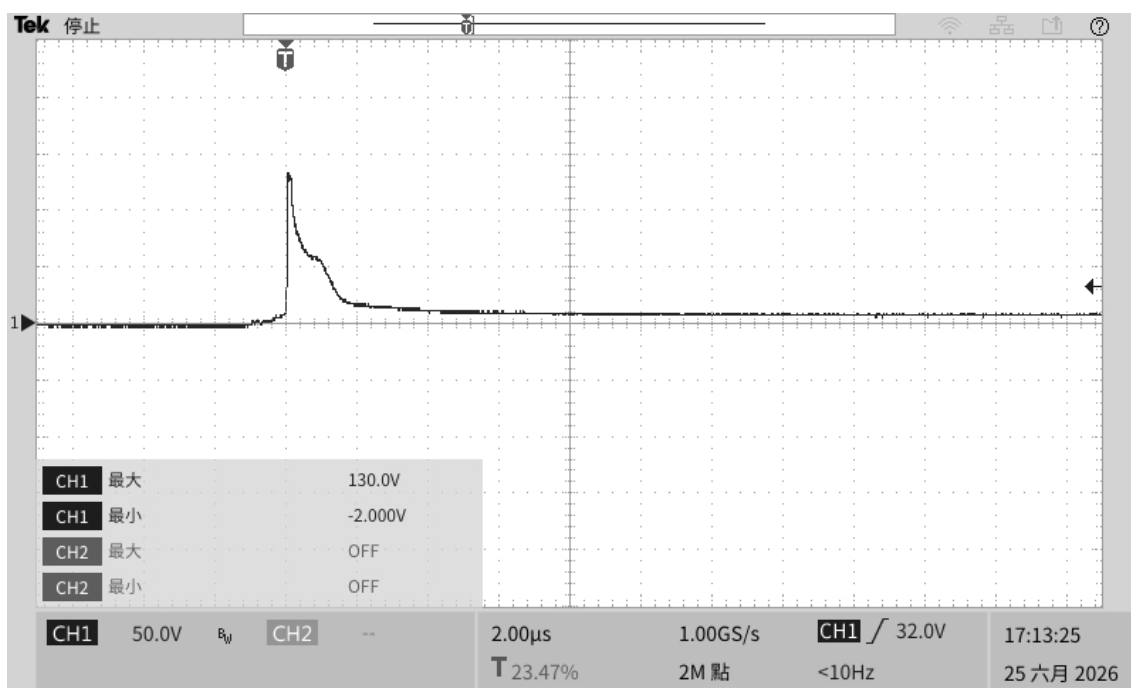
Electrical Characteristics			
Parameter	Symbol	Value	Unit
Max Discharge Current ^{Note (1)}	I_{NMAX}	2	KA
Nominal Common Mode Discharge Current	I_{NCM}	1	KA
Nominal Differential Mode Discharge Current	I_{NDM}	0.2	KA
Nominal PoE Mode Discharge Current	I_{NPOE}	0.2	KA
Maximum Operation DC Voltage	V_{DC}	60	VDC
Maximum Operation DC Current	I_{DC}	1	A
Common Mode Protection Level ^{Note (2)}	V_{PCM}	10	KV
Differential Mode Protection Level ^{Note (3)}	V_{PDM}	2	KV
PoE Mode Protection Level ^{Note (4)}	V_{PPOE}	2	KV
Common Mode Clamping Voltage	V_{CCM}	700	V
Differential Mode Clamping Voltage	V_{CDM}	150	V
PoE Mode Clamping Voltage	V_{CPOE}	150	V
Data Rate	-	10/100/1000	Mb/s
Insertion Loss ^{Note (5)}	$IL_{(Max)}$	1	dB
Return Loss ^{Note (5)}	$RL_{(Max)}$	-20	dB
Power Dissipation ^{Note (6)}	P_D	0.5	W
Response Time	-	5	ns
Operation Temperature	T_J	-40 ~ 85	°C
Note: (1) Measured at 8/20us current wave (2) Measured at 10/700us telecom wave (3) Measured at 10/700us telecom wave (4) Measured at 1.2/50us combination wave (5) Measured at 10MHz/100MHz (6) Measured at 1A DC current			

PERFORMANCE DEMONSTRATION

Transfer Characteristic

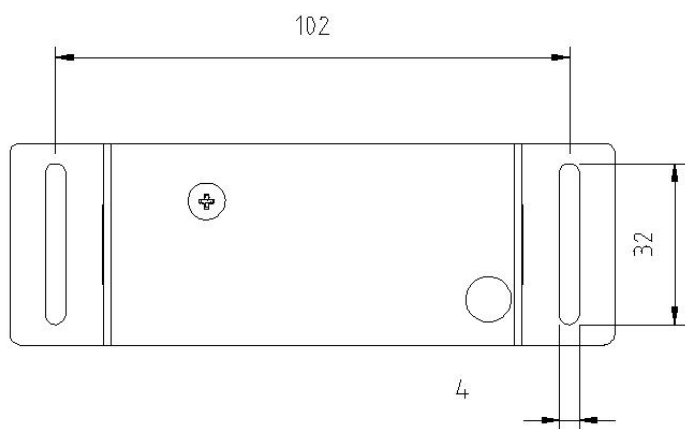
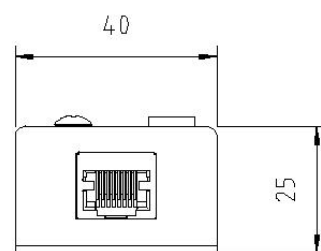
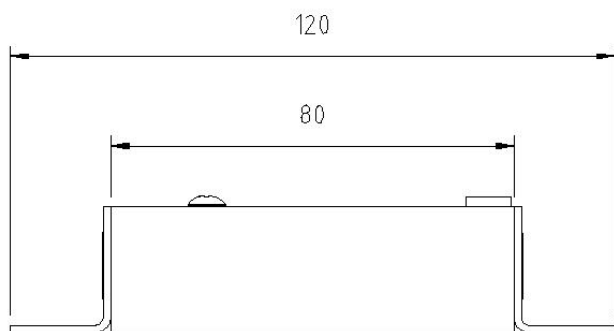


Differential Clamping Waveform



DEVICE OUTLINE

Dimension : mm



Revision History	Description
v2.0	Re-organize datasheet layout