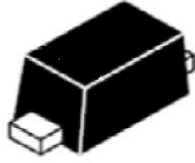
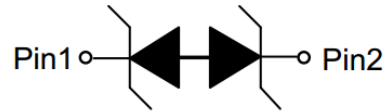


APPEARANCE



SOD-523 (Top View)

PIN CONFIGURATION



Pin configuration (Top view)

Descriptions

The APED7.0M8.0-52 is a Bi-directional transient voltage suppressor (TVS) to protect sensitive electronic components from electrostatic discharge (ESD). It is particularly well-suited for cellular phones, PMP , MID, PDA, digital cameras and other electronic quipment. The APED7.0M8.0-52 is safely dissipating ESD strikes to meet the ESD immunity testing of IEC61000-4-2 ($\pm 30KV$).

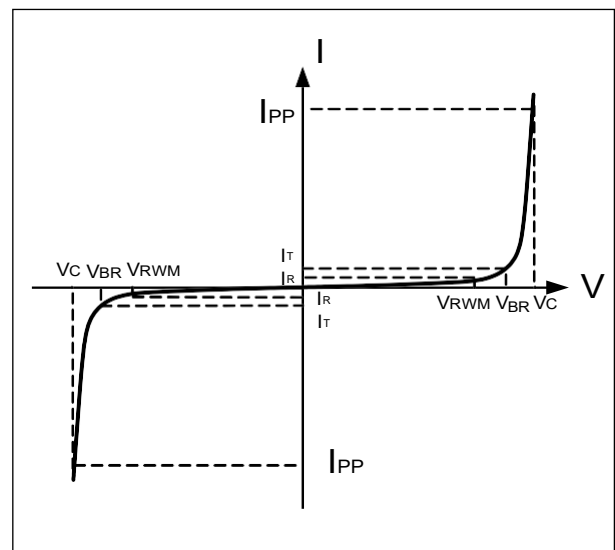
The APED7.0M8.0-52 is available in SOD-523 package. Standard products are Pb-free and Halogen-free.

Order information

Device	Package	Shipping
APED7.0M8.0-52	SOD-523	3000/Tape&Reel

Electrical Parameters (Ta=25°C)

Symbol	Parameter
V_{RWM}	Reverse Stand-off Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Reverse Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}



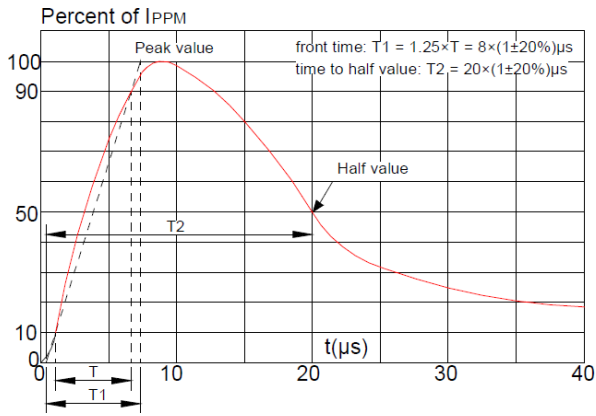
Absolute maximum ratings

Parameter	Symbol	Rating	Unit
Peak pulse power (tp = 8/20μs)	Ppk	70	W
Peak pulse current (tp = 8/20μs)	I _{PP}	8.0	A
ESD according to IEC61000-4-2 air discharge	V _{ESD}	±30	kV
ESD according to IEC61000-4-2 contact discharge		±30	kV
Junction temperature	T _J	150	°C
Operating temperature	T _{OP}	-55~125	°C
Storage temperature	T _{STG}	-55~150	°C

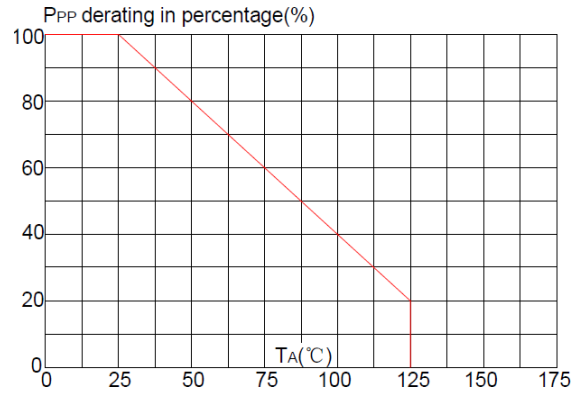
Electronics characteristics (Ta=25°C)

Parameter	Symbol	Condition	Min	Typ	Max	Units
Reverse Stand-off Voltage	VRWM				7.0	V
Reverse Breakdown Voltage	VBR	I _t =1mA	7.6		9.0	V
Reverse Leakage Current	I _R	VRWM=±7.0V			0.2	uA
Clamping Voltage	V _C	I _{pp} =8.0A, t _p =8/20us			12	V
Junction Capacitance	C _j	VR=0V, f=1MHz		18		pF

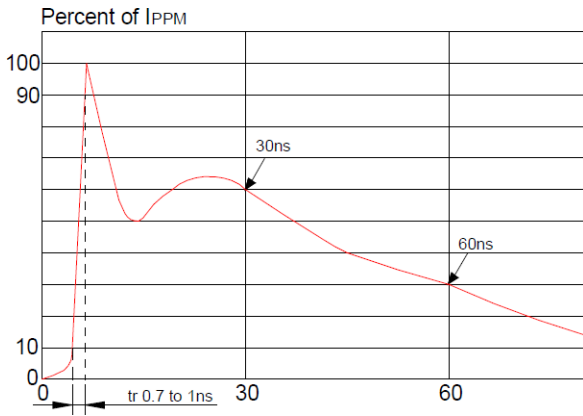
Typical Performance Characteristics



Pulse Waveform (8/20us)

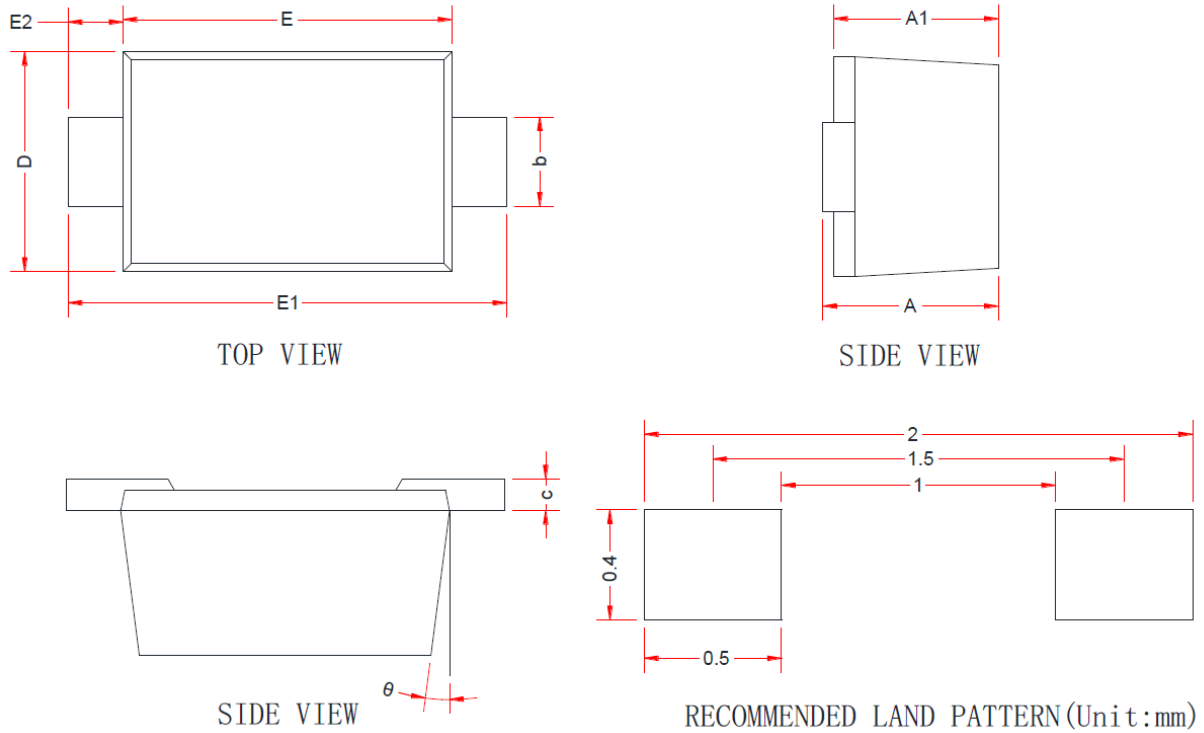


Pulse Derating Curve



ESD Clamping(8kV Contact Discharge)

Package Dimensions of SOD523



Symbol	Dimensions in Millimeters		
	Min.	Typ.	Max.
A	0.51	-	0.77
A1	0.50	0.60	0.70
b	0.25	-	0.40
c	0.08	-	0.15
D	0.75	0.80	0.85
E	1.10	1.20	1.30
E1	1.50	1.60	1.70
E2	0.20 Ref.		
θ	7 °C Ref.		

Note:

This recommended land pattern is for reference purpose only.

Revision History

Revision	Release	Remark
V1.0	2023/12/11	Initial Release

Disclaimer

The information given in this document describes the independent performance of the product, but similar performance is not guaranteed under other working conditions, and cannot be guaranteed when installed with other products or equipment. To achieve the required performance of the product in actual scenarios, the customer should conduct a complete application test to assess the functionality of the product.

DaQi assumes no responsibility for equipment failures result from using products at values that exceed the ratings, operating conditions, or other parameters listed in the product specifications.

The product described in this specification is not applicable for aerospace or other applications which requires high reliability. Customers using or selling these products for use in medical, life-saving, or life-sustaining applications do so at their own risk and agree to fully indemnify.

Due to product or technical improvements, the information described or contained herein may be changed without prior notice.