

APPEARANCE



PIN CONFIGURATION



Pin configuration (Top view)

Descriptions

The APES12H56-32 is a Uni-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 APES12H56-32 is safely dissipating ESD strikes to meet the ESD immunity testing of IEC61000-4-2 ($\pm 30\text{KV}$).

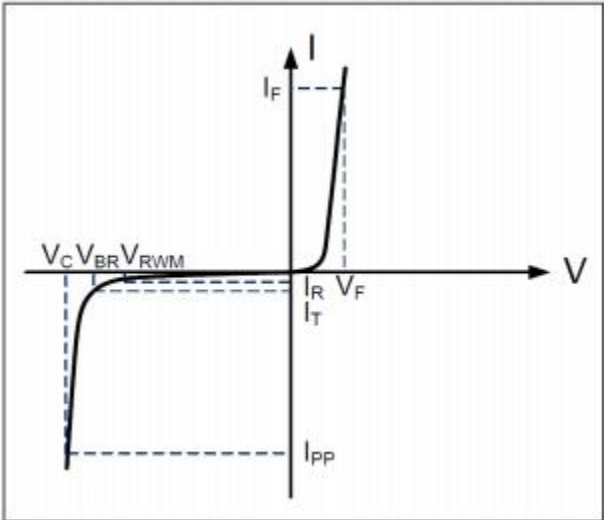
The APES12H56-32 is available in SOD-323 package. Standard products are Pb-free and Halogen-free.

Order information

Device	Package	Shipping
APES12H56-32	SOD-323	3000/Tape&Reel

Electrical Parameters (T=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}
I_F	Forward Current
V_F	Forward Voltage @ I_F



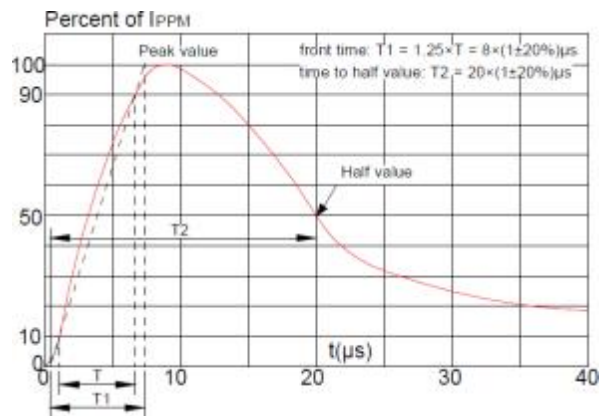
Absolute maximum ratings

Parameter	Symbol	Rating	Unit
Peak pulse power (tp = 8/20μs)	Ppk	1500	W
Peak pulse current (tp = 8/20μs)	I _{PP}	56	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

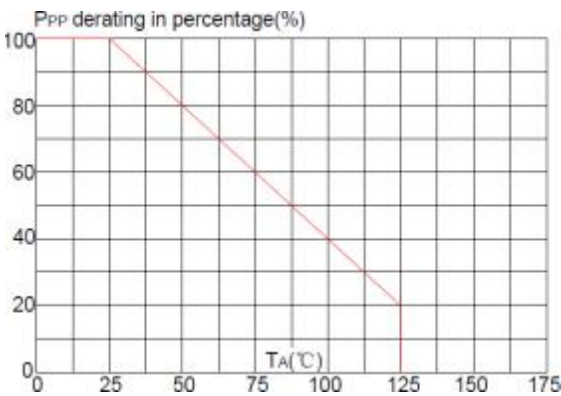
Electronics characteristics (Ta=25°C)

Parameter	Symbol	Condition	Min	Typ	Max	Units
Reverse Stand-off Voltage	VRWM				12	V
Reverse Breakdown Voltage	VBR	I _t =1mA	13.5	14.2	15.5	V
Reverse Leakage Current	I _R	VRWM=12V			0.1	uA
Clamping Voltage	V _C	I _{pp} =56A, tp=8/20us			30	V
Junction Capacitance	C _j	VR=0V, f=1MHz		370		pF

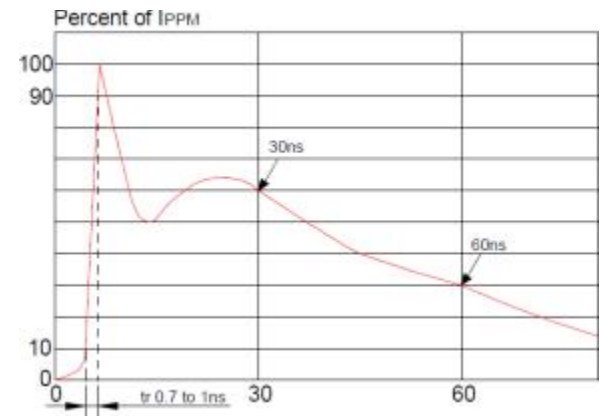
Typical characteristics (Ta=25°C)



Pulse Waveform (8/20us)

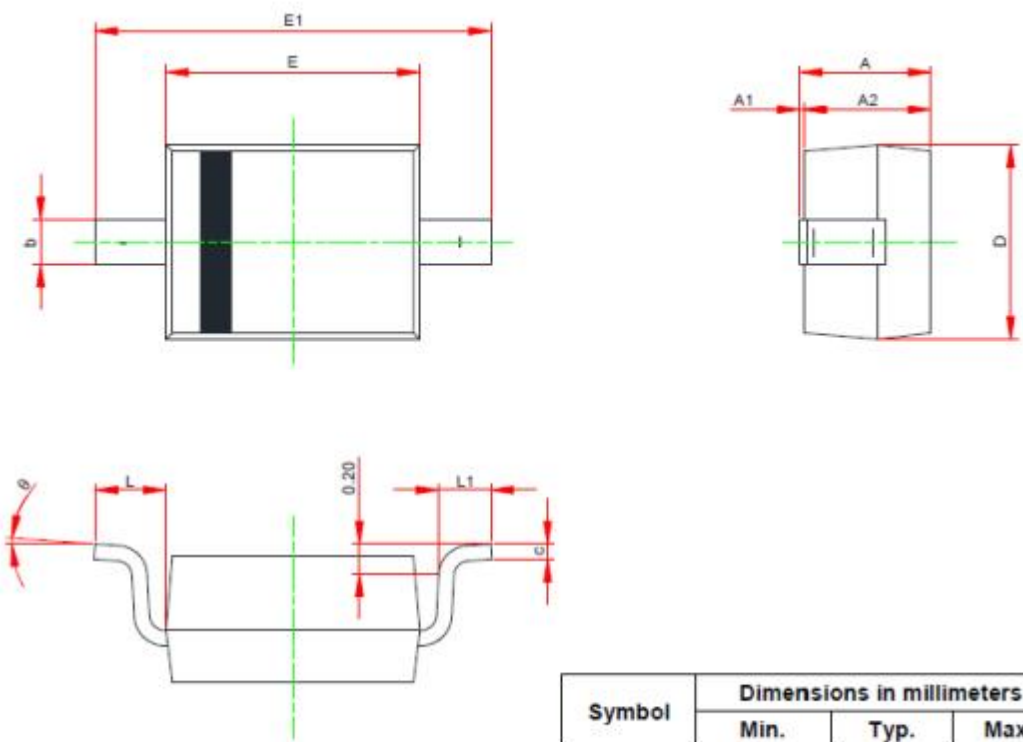


Pulse Derating Curve



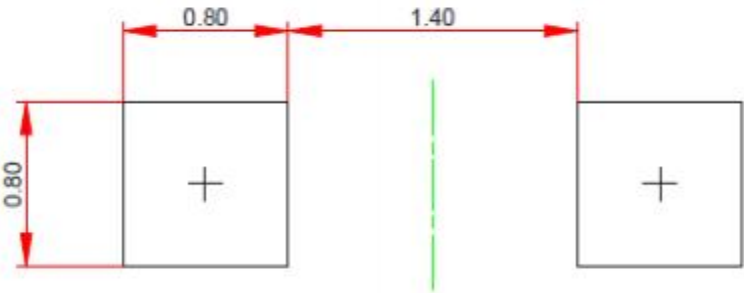
ESD Clamping(8kV Contact Discharge)

PACKAGE OUTLINE DIMENSIONS(SOD-323)



Symbol	Dimensions in millimeters		
	Min.	Typ.	Max.
A	0.800	-	1.000
A1	0.000	-	0.100
A2	0.800	-	0.900
b	0.250	-	0.350
c	0.080	-	0.150
D	1.200	-	1.400
E	1.600	-	1.800
E1	2.500	-	2.700
L	0.475 REF		
L1	0.250	-	0.400
θ	0°	-	8°

Recommend land pattern (Unit: mm)



Note:
This recommended land pattern is for reference purpose only.