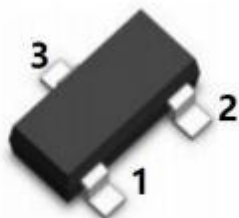
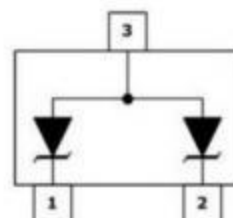


APPEARANCE



SOT-23

PIN CONFIGURATION



Circuit diagram

Descriptions

The APES12H15-23 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 APES12H15-23 is safely dissipating ESD strikes to meet the ESD immunity testing of IEC61000-4-2 ($\pm 30KV$).

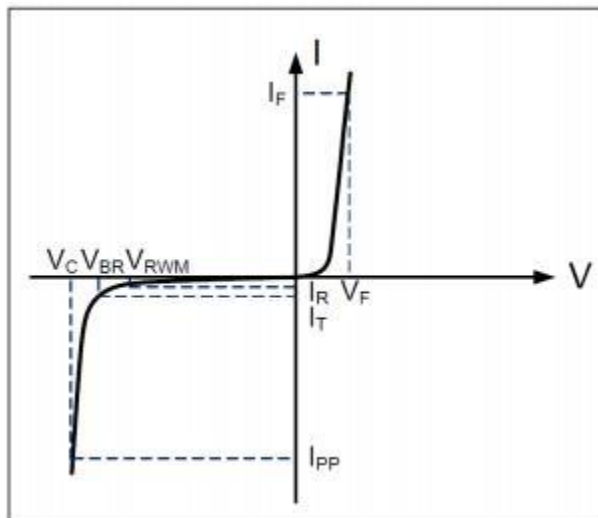
The APES12H15-23 is available in SOT-23 package. Standard products are Pb-free and Halogen-free.

Order information

Device	Package	Shipping
APES12H15-23	SOT-23	3000/Tape&Reel

Electrical Parameters (T=25°C)

Symbol	Parameter
VRWM	Reverse Stand-off Voltage
IR	Reverse Leakage Current @ VRWM
VBR	Reverse Breakdown Voltage @ IT
IT	Test Current
IPP	Reverse Peak Pulse Current
VC	Clamping Voltage @ IPP
IF	Forward Current
VF	Forward Voltage @ IF



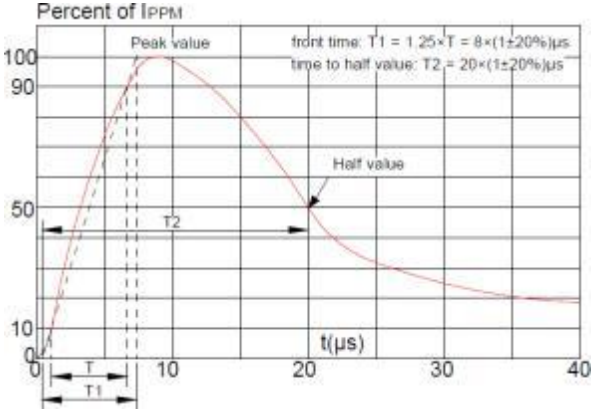
Absolute maximum ratings

Parameter	Symbol	Rating	Unit
Peak pulse power (tp = 8/20μs)	Ppk	300	W
Peak pulse current (tp = 8/20μs)	I _{PP}	15.5	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

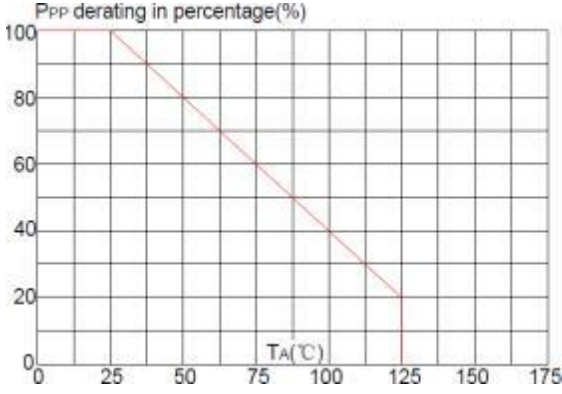
Electronics characteristics (Ta=25°C)

Parameter	Symbol	Condition	Min	Typ	Max	Units
Reverse Stand-off Voltage	VRWM				12	V
Reverse Breakdown Voltage	VBR	I _t =1mA	13.5		15	V
Reverse Leakage Current	I _R	VRWM=24V			0.1	uA
Clamping Voltage	V _C	I _{pp} =15.5A, t _p =8/20us			26	V
Junction Capacitance	C _j	VR=0V, f=1MHz		80		pF

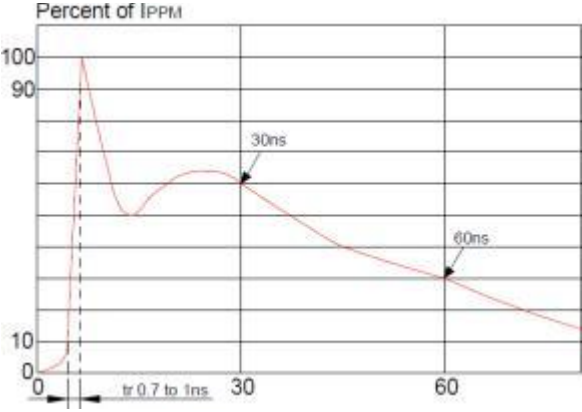
Typical characteristics (Ta=25°C)



Pulse Waveform (8/20us)

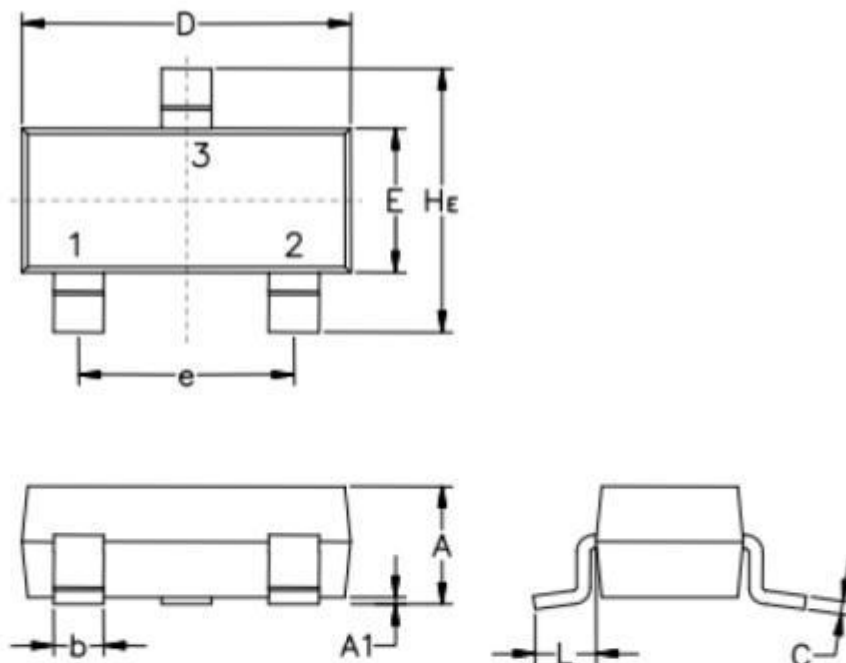


Pulse Derating Curve



ESD Clamping(8kV Contact Discharge)

PACKAGE OUTLINE DIMENSIONS(SOT-23)



Symbol	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	0.89	1.00	1.11	0.035	0.040	0.044
A1	0.01	0.06	0.10	0.001	0.002	0.004
b	0.37	0.44	0.50	0.15	0.18	0.20
c	0.09	0.13	0.18	0.003	0.005	0.007
D	2.80	2.90	3.04	0.110	0.114	0.120
E	1.20	1.30	1.40	0.047	0.051	0.055
e	1.78	1.90	2.04	0.070	0.075	0.081
L	0.35	0.54	0.69	0.014	0.021	0.029
HE	2.10	2.40	2.64	0.083	0.094	0.104

Note:

This recommended land pattern is for reference purpose only.