



Micro Commercial Components

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ESD12VK4

12 Volts ESD Protection Device

SOT23-6L

Features

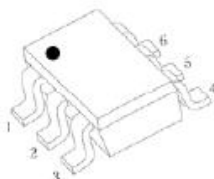
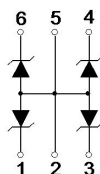
- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Uni-directional ESD protection of one line
- Low reverse clamping voltage
- Low leakage current
- Fast response time

Maximum Ratings

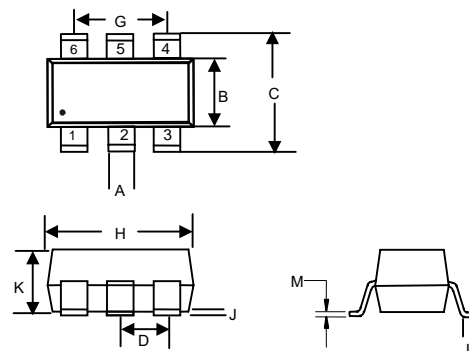
- Operating Junction & Storage Temperature: -55°C to +150°C

Parameter	Symbol	Limits	unit
IEC61000-4-2(ESD) Air Contact		±25 ±25	KV
Peak Pulse Power: @ 8/20us	Ppk	220	W
Peak Pulse Current: @ 8/20us	Ipp	9	A

Pin Configuration



Marking: 12VK4

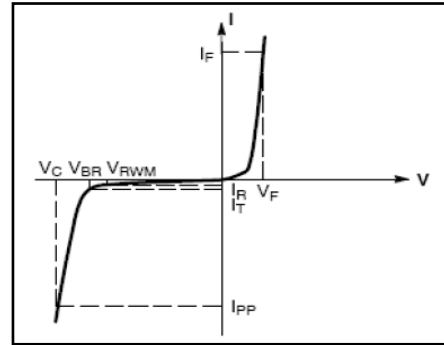


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.012	.020	0.30	0.50	
B	.059	.067	1.50	1.70	
C	.104	.116	2.65	2.95	
D	.037		0.95BSC		
G	.074		1.90BSC		
H	.111	.119	2.82	3.02	
J	.000	.006	0.00	0.15	
K	.035	.051	0.90	1.30	
L	.012	.024	0.30	0.60	
M	.003	.008	0.08	0.22	

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ELECTRICAL PARAMETER

Symbol	Parameter
V_C	Clamping Voltage @ I_{PP}
I_{PP}	Peak Pulse Current
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_R	Reverse Leakage Current @ V_{RWM}
V_{RWM}	Reverse Standoff Voltage
V_F	Forward Voltage @ I_F
I_F	Forward Current



V-I characteristics for a uni-directional TVS

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise specified)

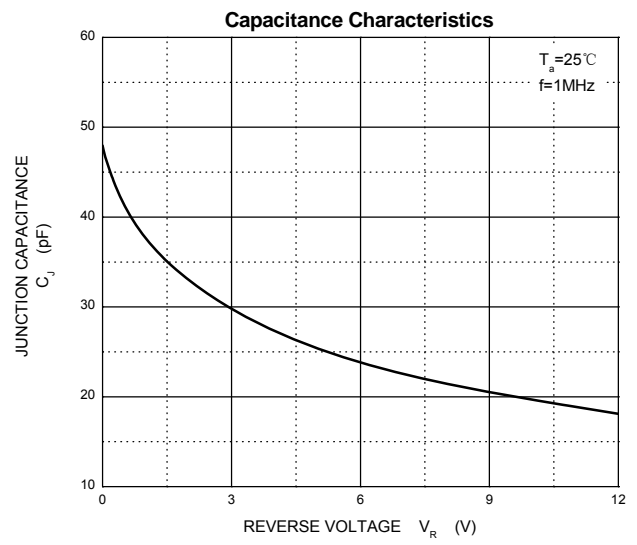
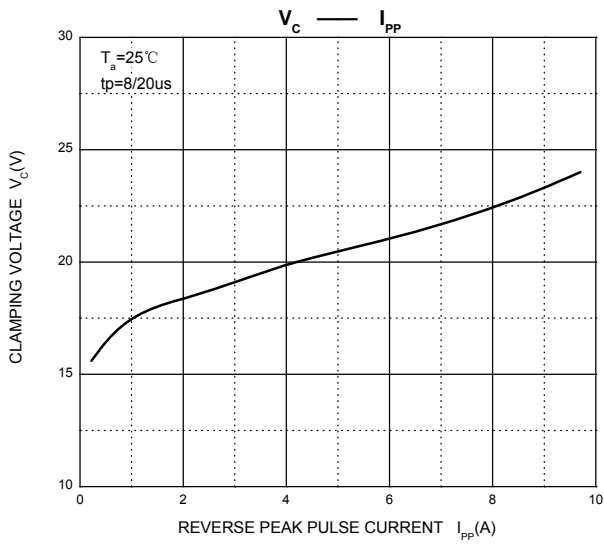
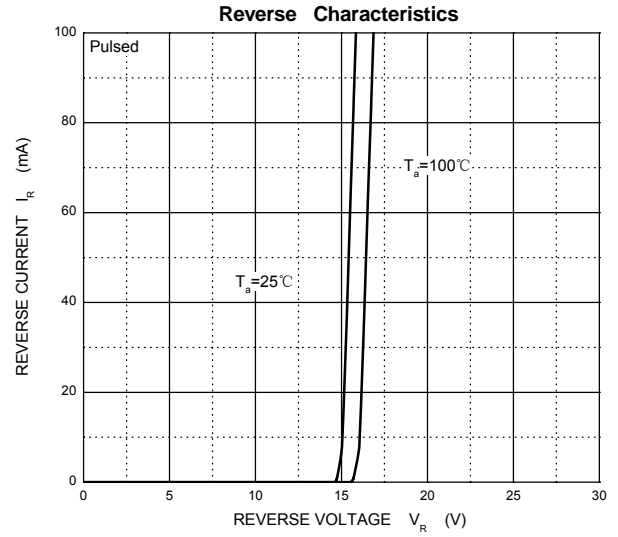
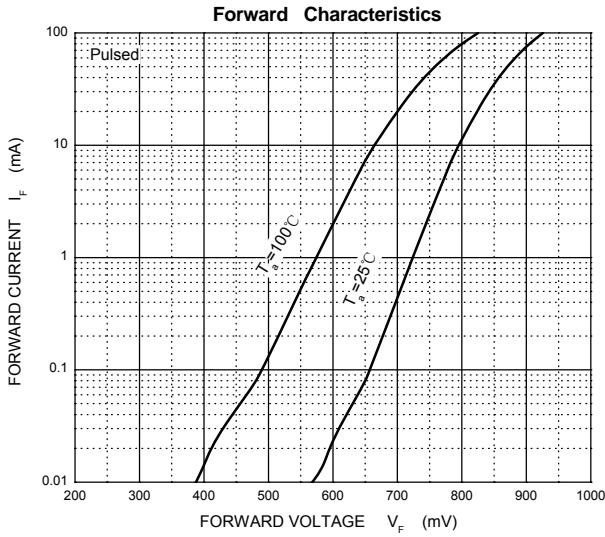
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse stand off voltage	$V_{RWM}^{(1)}$				12	V
Reverse leakage current	I_R	$V_{RWM}=12\text{V}$			1	μA
Breakdown voltage	$V_{(BR)}$	$I_T=1\text{mA}$	13.3		16.5	V
Clamping voltage	$V_C^{(2)}$	$I_{PP}=9\text{A}$			24	V
Forward voltage	V_F	$I_F=10\text{mA}$			0.9	V
Junction capacitance	C_J	$V_R=0\text{V}, f=1\text{MHz}$		45		pF

(1). Other voltages available upon request.

(2). Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5

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TYPICAL CHARACTERISTICS





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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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