

**Micro Commercial Components** 



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## **SM712**

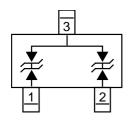
## **Features**

- Halogen free available upon request by adding suffix "-HF"
- For sensitive ESD protection
- **Excellent clamping capability**
- Low leakage
- ESD rating of class 3(>16KV)per Human Body Mode
- Fast response ,response time less than 1ns.
- 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

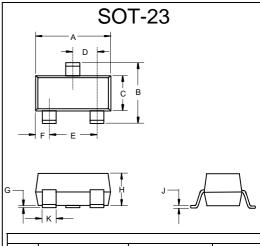
Operating Junction & Storage Temperature: -55°C to +150°C

Parameter	Symbol	Limits	unit	
IEC61000-4-2(ESD)	Air		±15	10.7
	Contact		±8	KV
ESD Voltage per human body mode			16	K۷
Peak Pulse Power(8/20us)		Ppk	400	W

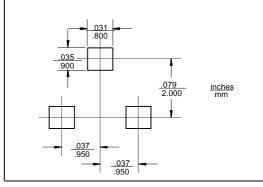
## **Pin Configuration-Top View**



# **ESD Protection Device**



	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
Α	.110	.120	2.80	3.04	
В	.083	.104	2.10	2.64	
С	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
Е	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
Н	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

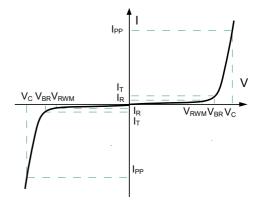




## **Micro Commercial Components**

## **ELECTRICAL CHARACTERISTICS** (T<sub>A</sub> = 25°C unless otherwise noted)

Symbol	Parameter		
I <sub>PP</sub>	Maximum Reverse Peak Pulse Current		
Vc	V <sub>C</sub> Clamping Voltage @ I <sub>PP</sub>		
$V_{RWM}$	Working Peak Reverse Voltage		
I <sub>R</sub>	Maximum Reverse Leakage Current @ V <sub>RWM</sub>		
$V_{BR}$	V <sub>BR</sub> Breakdown Voltage @ I <sub>T</sub>		
I <sub>T</sub>	Test Current		
С	Capacitance @V <sub>R</sub> =0 and f =1MHz		



Parameter	Symbol	Conditions	Min.	Тур.	Max.	Units	
Reverse Stand-off Voltage	V <sub>RWM</sub>	Pin 1 or Pin 2 to Pin 3			12	V	
		Pin 3 to Pin 1 or Pin 2			7		
Reverse Breakdown Voltage	$V_{BR}$	Pin 1 or Pin 2 to Pin 3 I <sub>t</sub> = 1mA	13.3			V	
		Pin 3 to Pin 1 or Pin 2 I <sub>t</sub> = 1mA	7.5				
Reverse Leakage Current	I <sub>R</sub>	Pin 1 or Pin 2 to Pin 3 V <sub>RWM</sub> =12V			1.0		
		Pin 3 to Pin 1 or Pin 2 V <sub>RWM</sub> = 5V			1.0	μA	
Clamping Voltage	V	Pin 1 or Pin 2 to Pin 3 I <sub>PP</sub> = 5A			21	V	
	V <sub>C</sub>	Pin 3 to Pin 1 or Pin 2 I <sub>PP</sub> = 5A			10.5		
Junction Capacitance	C <sub>j</sub>	V <sub>R</sub> =0V f = 1MHz		45		pF	



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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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