



Micro Commercial Components



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Features

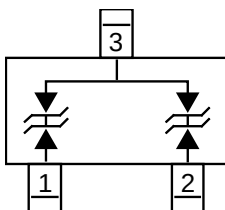
- Halogen free available upon request by adding suffix "-HF"
- For sensitive ESD protection
- Excellent clamping capability
- Low leakage
- ESD rating of class 3(>16KV)per Human Body Mode
- Fast response ,response time less than 1ns.
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Junction & Storage Temperature: -55°C to +150°C
- Marking: B712

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

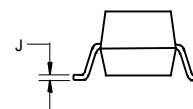
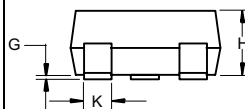
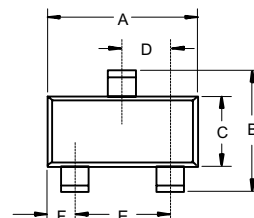
Pin Configuration-Top View



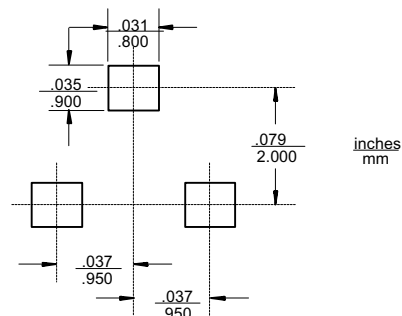
SM712

ESD Protection Device

SOT-23

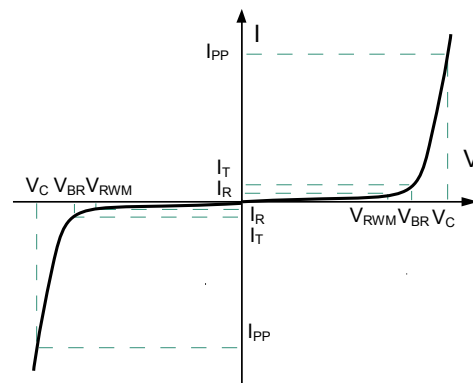


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	



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

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
C	Capacitance @ $V_R=0$ and $f=1\text{MHz}$



Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}	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 $I_t = 1\text{mA}$	13.3			V
		Pin 3 to Pin 1 or Pin 2 $I_t = 1\text{mA}$	7.5			
Reverse Leakage Current	I_R	Pin 1 or Pin 2 to Pin 3 $V_{RWM} = 12\text{V}$			1.0	μA
		Pin 3 to Pin 1 or Pin 2 $V_{RWM} = 5\text{V}$			1.0	
Clamping Voltage	V_C	Pin 1 or Pin 2 to Pin 3 $I_{PP} = 5\text{A}$			21	V
		Pin 3 to Pin 1 or Pin 2 $I_{PP} = 5\text{A}$			10.5	
Junction Capacitance	C_j	$V_R=0\text{V}$ $f = 1\text{MHz}$		45		pF



TM

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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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