·M·C·C·

Micro Commercial Components

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SM712
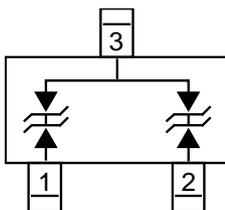
ESD Protection Device

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 &StorageTemperature: -55°C to +150°C
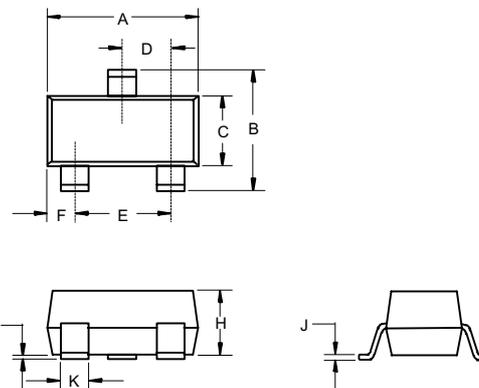- Marking: B712

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

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	

inches
mm
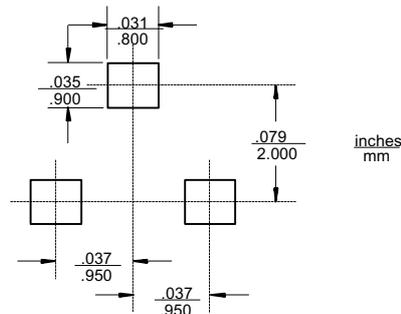
ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

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 =1MHz
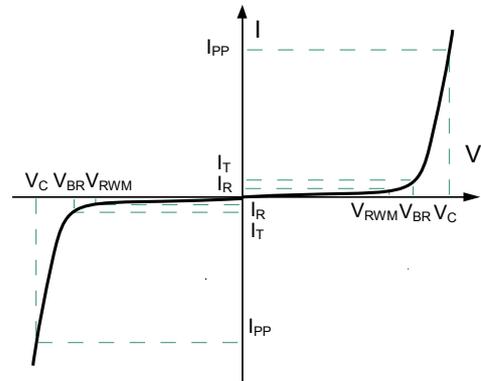
Parameter	Symbol	Conditions		Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}	Pin 1 or Pin 2 to Pin 3				12	V
		Pin 3 to Pin 1 or Pin 2				7	
Reverse Breakdown Voltage	V_{BR}	Pin 1 or Pin 2 to Pin 3	I_t = 1mA	13.3			V
		Pin 3 to Pin 1 or Pin 2	I_t = 1mA	7.5			
Reverse Leakage Current	I_R	Pin 1 or Pin 2 to Pin 3	V_{RWM} =12V			1.0	µA
		Pin 3 to Pin 1 or Pin 2	V_{RWM} = 5V			1.0	
Clamping Voltage	V_C	Pin 1 or Pin 2 to Pin 3	I_{PP} = 5A			21	V
		Pin 3 to Pin 1 or Pin 2	I_{PP} = 5A			10.5	
Junction Capacitance	C_j	V_R=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

www.mccsemi.com