



Micro Commercial Components



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Features

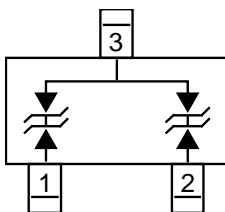
- Halogen free available upon request by adding suffix "-HF"
- For sensitive ESD protection
- Excellent clamping capability
- Low leakage
- ESD rating of class 3(>16KV)per Human Body Mode
- Fast response ,response time less than 1ns.
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. 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 |

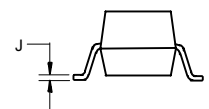
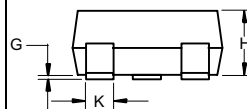
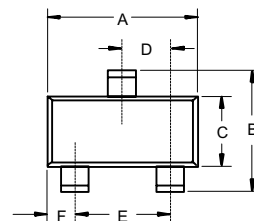
Pin Configuration-Top View



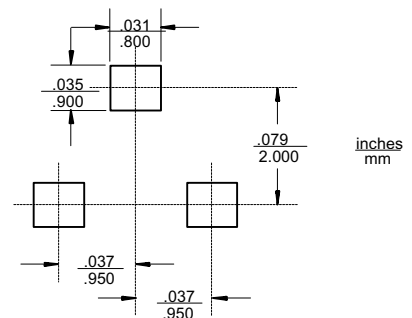
SM712

ESD Protection Device

SOT-23

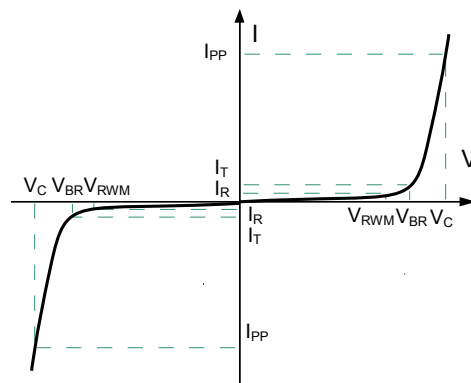


| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | .110 | .120 | 2.80 | 3.04 | |
| B | .083 | .104 | 2.10 | 2.64 | |
| C | .047 | .055 | 1.20 | 1.40 | |
| D | .035 | .041 | .89 | 1.03 | |
| E | .070 | .081 | 1.78 | 2.05 | |
| F | .018 | .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°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

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