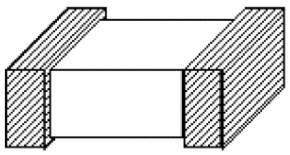
1. Features

- Ultra-Low capacitance:3pF(typ.)
- Reverse stand-off voltage:5V
- IEC 61000-4-2 (ESD Air): ±15kV
  IEC 61000-4-2 (ESD Contact): ±10kV

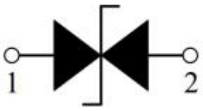
2. Pin Description



3. Applications

- Computers and Peripherals
- Audio and Video Equipment
- Cellular Handsets and Accessories
- Portable Electronics

4. Schematic Diagram



5. Order Information

Type	Package	Size (mm)	Delivery Form	Delivery Quantity
MKT2312AA	0201	0.60 x 0.30 x 0.30	7" T&R	15,000

6. Limiting Values(T_A = 25 °C, unless otherwise specified)

Symbol	Parameter	Conditions	Min	Max	Unit
V_{ESD}	Electrostatic Discharge Voltage	IEC 61000-4-2; Contact Discharge	-	±10	kV
		IEC 61000-4-2; Air Discharge	-	±15	kV
T_{OP}	Operating Temperature	-	-55	125	℃
T_{stg}	Storage Temperature Range	-	-55	150	℃

7. Electrical Characteristics(T_A = 25 °C unless otherwise specified)

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
V_{RWM}	Reverse Working Voltage	T_A = 25 °C	-	-	5	V
V_{BR}	Breakdown Voltage	I_R = 1mA; T_A = 25 °C	-	10	-	V
I_R	Reverse Leakage Current	V_{RWM} = 5V; T_A = 25 °C	-	-	1	μA
V_C	Clamping Voltage	I_{PP}=1A, t_P=8/20μs	-	14	16	V
C_J	Junction Capacitance	V_R = 0V, f = 1 MHz	-	3	-	pF

8. Typical Characteristics

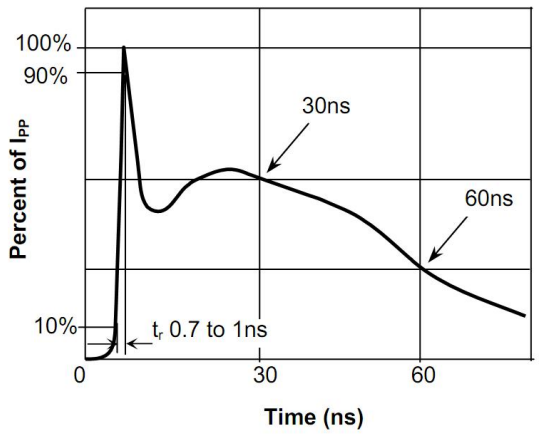


Fig.1 Pulse Waveform-ESD(IEC61000-4-2)

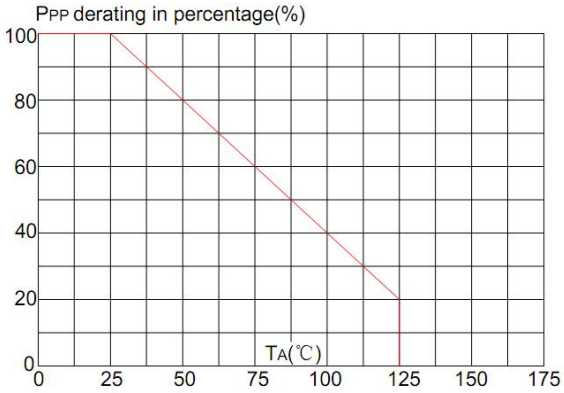


Fig.2 Pulse Derating Curve

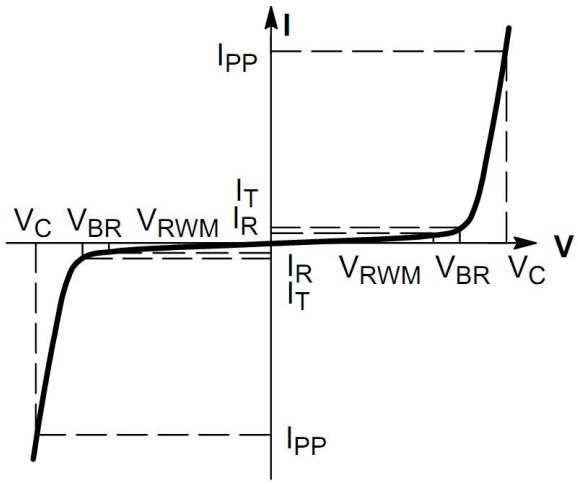


Fig.3 V-I Characteristics for Bidirectional Diode

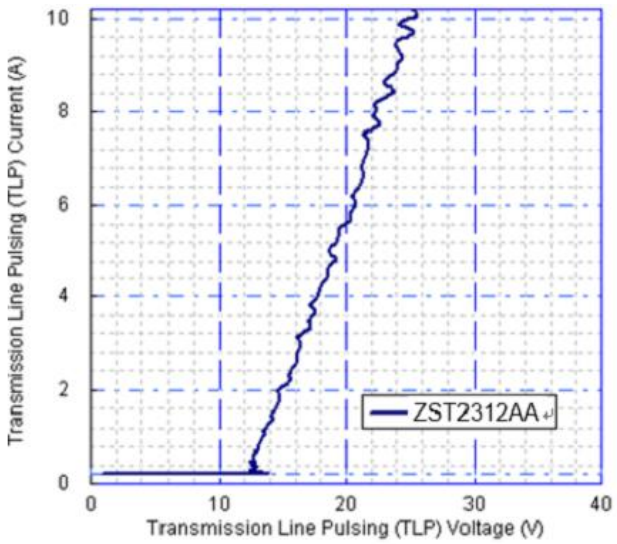
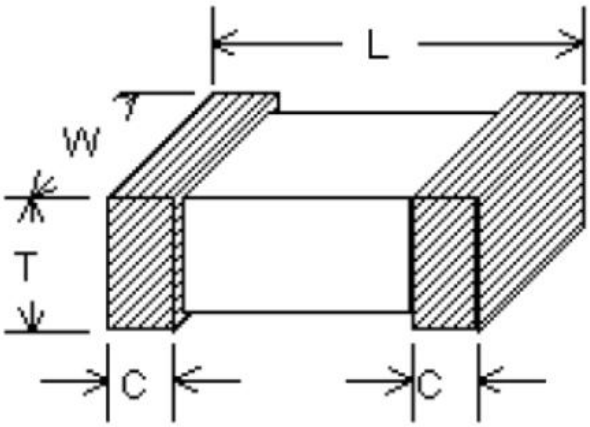


Fig.4 Transmission Line Pulse (t_P=100ns)

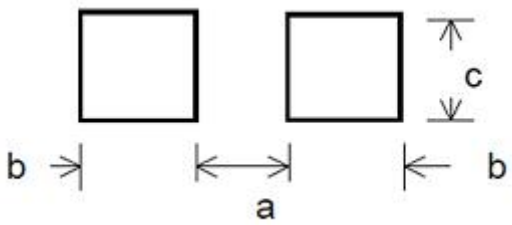
9. Package Dimension

0201 Package Outline



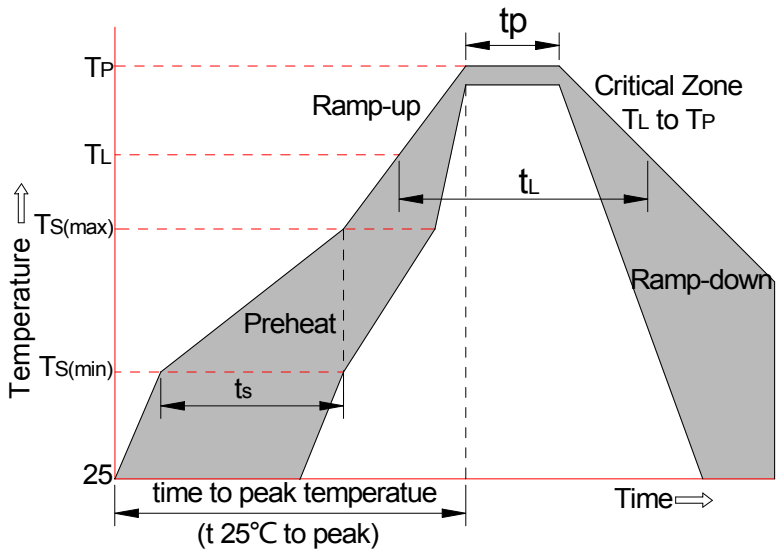
Symbol	Dimensions In Millimeters		
	Min	Nom	Max
L	0.55	0.60	0.65
W	0.26	0.30	0.34
T	0.26	0.30	0.34
C	0.14	0.20	0.26

Suggested Land Pattern



Symbol	Dimensions In Millimeters	
	Min	Max
a	0.20	0.30
b	0.25	0.30
c	0.30	0.40

10. Soldering Parameters



Reflow Condition		Pb-Free Assembly
Pre-heat	-Temperature Min ($T_{s(min)}$)	+150°C
	-Temperature Max($T_{s(max)}$)	+200°C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3°C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217°C
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
xTime 25°C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260°C

11. Contact Information

Online product information is available at www.mkfounder.com

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12. Copyrights & Disclaimer

13. Reversion History

Document ID	Release Date	Sheet Status	Change Notice	Supersedes
0.1	08-Mar-2018	Product data sheet	-	-