

**ZINC OXIDE VARISTOR****Part Number System**

13 - S - 0805 - 180 - C - 400
 (1) (2) (3) (4) (5) (6)

(1) Product Name: Zinc Oxide Varistor

(2) Product Identifier : Surface Mount

(3) Dimensions

(4) Working Voltage (V)

$$180 = 18 * 10^0 \text{ V}$$

(5) Transient Energy(J)

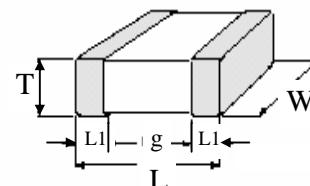
$$A : 0.02J; B : 0.05J; C : 0.1J; D : 0.2J.....$$

(6) Clamping Voltage (V)

$$400 = 40 * 10^0 \text{ V}$$

Features

- Chip varistor provides high reliability on surface mounting.
- Wide range of working voltage. ($V_w=3.3V \sim 30V$)
- Good clamping ratio and low leakage current.
- Electroplating of Ni and solder gives higher solderability.
- Wide operating temperature range (-55 °C to 125 °C)
- Various capacitance is available.

SURFACE**Outline Drawing and Dimension**

Size	L (mm)	W (mm)	T (mm)	L1 (mm)
0402	1.0±0.1	0.5±0.1	0.5±0.1	0.2±0.1
0603	1.6±0.1	0.8±0.1	0.8±0.1	0.3±0.1
0805	2.0±0.1	1.2±0.1	0.8±0.1	0.4±0.1
1206	3.2±0.2	1.6±0.2	1.0±0.1	0.4±0.1

Applications

- Protection from transient voltage noise in all kinds of IC.
- Replacement of zener diode
- Protection from ESD, EFT and surge in power I/O port.

Characteristics

Size	Part No.	Working Voltage (<25uA)	Breakdown Voltage (@1mA)	Clamping Voltage (8/20us)	Peak Current (8/20us)	Transient Energy (10/1000us)	Capacitance (@1KHz)
		$V_w(V)$	$V_B(V)$	$V_c(V)$	$I_p(A)$	$E_T(J)$	$C(pF)$
0402	13S0402033B100	3.3	3.9~5.9	10	20	0.05	400
	13S0402056B160	5.6	7.2~9.6	16	20	0.05	300
	13S0402090B200	9.0	10.8~14.3	20	20	0.05	200
	13S0402140B300	14.0	16.8~22.2	30	20	0.05	50
	13S0402180B400	18.0	21.5~28.5	40	20	0.05	40
	13S0402260B580	26.0	30.9~40.9	58	20	0.05	30
0603	13S0603033C100	3.3	3.9~5.9	10	30	0.1	2000
	13S0603056C160	5.6	7.2~9.6	16	30	0.1	1000
	13S0603090C200	9.0	10.8~14.3	20	30	0.1	650
	13S0603140C300	14.0	16.8~22.2	30	30	0.1	450
	13S0603180C400	18.0	21.5~28.5	40	30	0.1	230
	13S0603260C580	26.0	30.9~40.9	58	30	0.1	180
	13S0603300C650	30.0	35.7~47.3	65	30	0.1	120
0805	13S0805033C100	3.3	3.9~5.9	10	40	0.1	3000
	13S0805056C160	5.6	7.2~9.6	16	40	0.1	1800
	13S0805090C200	9.0	10.8~14.3	20	40	0.1	1300
	13S0805140C300	14.0	16.8~22.2	30	35	0.1	800
	13S0805180C400	18.0	21.5~28.5	40	35	0.1	450
	13S0805260C580	26.0	30.9~40.9	58	35	0.1	300
	13S0805300C650	30.0	35.7~47.3	65	35	0.1	200
1206	13S1206033C100	3.3	3.9~5.9	10	40	0.1	3000
	13S1206056C160	5.6	7.2~9.6	16	40	0.1	1800
	13S1206090C200	9.0	10.8~14.3	20	40	0.1	1300
	13S1206140C300	14.0	16.8~22.2	30	35	0.1	800
	13S1206180C400	18.0	21.5~28.5	40	35	0.1	450
	13S1206260C580	26.0	30.9~40.9	58	35	0.1	300
	13S1206300C650	30.0	35.7~47.3	65	35	0.1	200
	13S1206180F400	18.0	21.5~28.5	40	150	0.4	1500

* OPERATING TEMPERATURE RANGE: -40 TO 85 °C

* STORAGE TEMPERATURE RANGE: -40 TO 125 °C

Hyper-Sense Technology Co., Ltd.

竑碩科技股份有限公司

高雄市三民區北平二街 16 號 5F

5F, No.16, Beiping 2nd St., Sanmin District, Kaohsiung City, Taiwan

TEL : 886-7-3225051 ; FAX : 886-7-3225057