

ESD Suppressor AEC-Q200 Thin Film Air Gap Type

ME-U-A Series

MERITEK

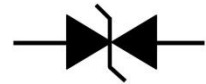
FEATURE

- IEC 61000-4-2 ESD: $\pm 15\text{KV}$ (Air) $\pm 8\text{KV}$ (Contact)
- ESD Protection for one Bidirectional Channel
- Extremely quick response time
- Extremely low capacitance
- Extremely low leakage current
- AEC-Q200 Qualified



APPLICATION

- Digital Video Equipment
- Mobile Phone
- GPS Antenna
- Bluetooth Communication Equipment



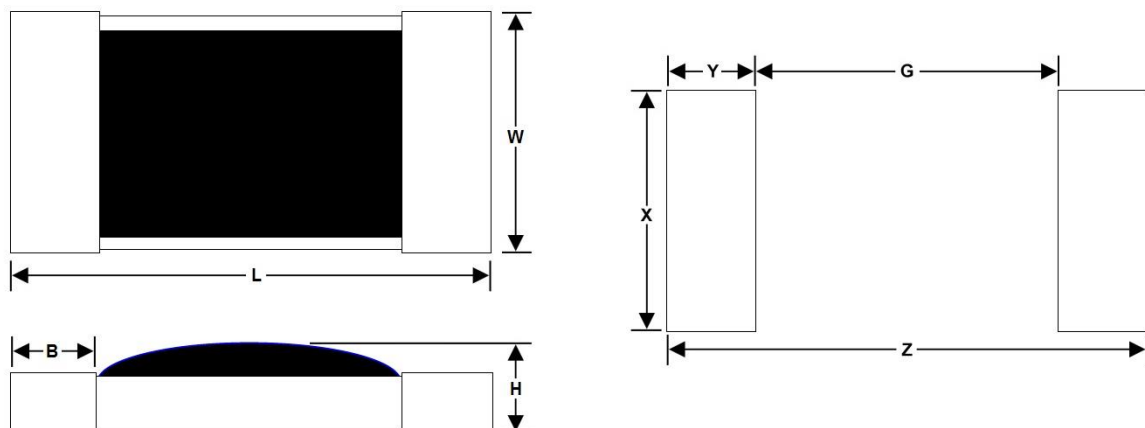
PART NUMBERING SYSTEM



ME **0** **1B** **35** **U01**
(1) (2) (3) (4) (5)

No	Item	Code	Description	Series Reference
(1)	Meritek Series	ME	ESD Suppressor	Surface Mount Chip Type
(2)	Working Voltage	0	0: 0VDC	Maximum Continuous Voltage
(3)	Channel / Direction	1B	1B: 1 Bidirectional Channel	Symmetrical V/I Characteristics
(4)	Clamping Voltage	35	35: 35V	
(5)	Internal Code	U02	U: Thin Film Air Gap, 02: 0402	03: 0603

DIMENSION AND SOLDERING PAD



EIA Size	L	W	H	B	Z	G	X	Y
0402	1.00 \pm 0.10	0.50 \pm 0.10	0.34 \pm 0.10	0.20 \pm 0.15	1.7	0.5	0.6	0.60
0603	1.60 \pm 0.10	0.85 \pm 0.15	0.51 \pm 0.05	0.30 \pm 0.20	3.0	1.0	1.0	1.00

Unit: mm

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ELECTRICAL CHARACTERISTICS

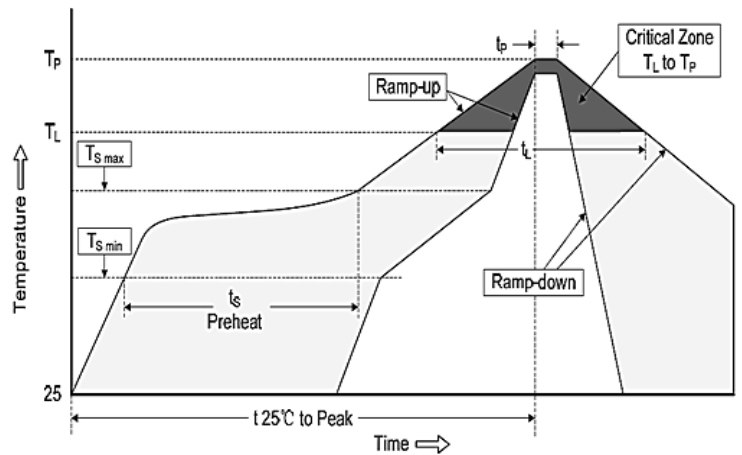
Item	Max. Rated Voltage	Typ. Leakage Current	Typ. Peak Voltage	Clamping Voltage		Capacitance		Max. Response time
				Typ.	Max.	Typ.	Max.	
	(VDC)	(μ A)	(V)	(V)		(pF)		(ns)
ME51B30U02A	5	0.01	300	30	--	0.20	--	<1
ME121B30U02A	12	0.01	300	30	--	0.20	--	<1
ME241B30U02A	24	0.01	300	30	--	0.20	--	<1
ME51B30U03A	5	0.01	300	30	--	0.20	--	<1
ME121B30U03A	12	0.01	300	30	--	0.20	--	<1
ME241B30U03A	24	0.01	300	30	--	0.20	--	<1

Note:

- ESD Typical Withstand Pulse is 1000 Pulses
- Operating and Storage Temperature Range is -55 to +125°C

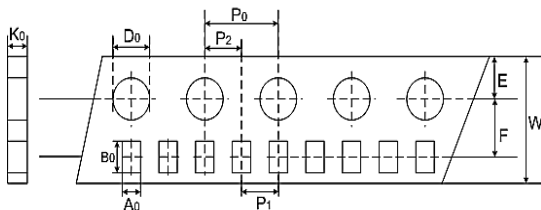
SOLDERING RECOMMENDATION

Reflow Condition		
Pre Heat	Temp. Min $T_{S(min)}$	150°C
	Temp. Max $T_{S(max)}$	200°C
	Time (min. to max.) (t_s)	60~180 seconds
Average ramp up rate (Liquidus Temperature) (T_L) to peak		3°C/second Max
$T_{S(max)}$ to T_L (Ramp-up rate)		3°C/second Max
Reflow	Temp. (T_L)	217°C
	Time (t_L) (min. to max.)	60~150 seconds
Peak Temperature (T_P)		260°C
Time within 5°C of actual peak Temperature (t_p)		20~40 seconds
Ramp-down Rate		6°C/second Max
Time 25°C to peak		8 minutes Max

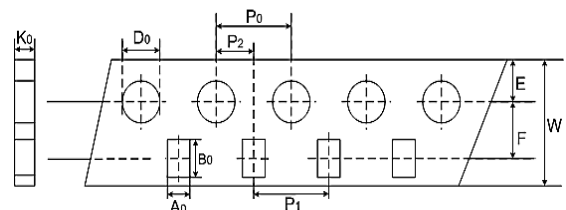


TAPING SPECIFICATION

Taping Specification (0201, 0402)



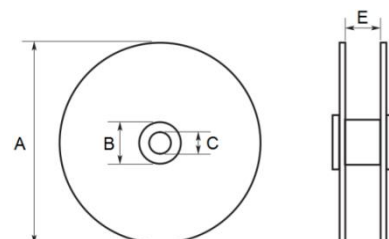
Taping Specification (0603)



Size	A_0 ± 0.03	B_0 ± 0.03	W ± 0.30	E ± 0.10	F ± 0.05	P_1 ± 0.05	P_2 ± 0.05	P_0 ± 0.10	D_0 ± 0.10	K_0 ± 0.03
0402	0.63	1.13	8.00	1.75	3.50	2.00	--	4.00	1.50	0.43
0603	1.05	1.90	8.00	1.75	3.50	2.00	--	4.00	1.50	0.60

Unit: mm

Size	A ± 2.00	B ± 1.50	C ± 0.50	E ± 1.00	Pcs/Reel
0402	178	62	13.0	9.0	10000
0603	330	100	13.0	8.0	15000



*Specifications subject to change without notice.