



Ceramic transient voltage suppressors

Taping and packing

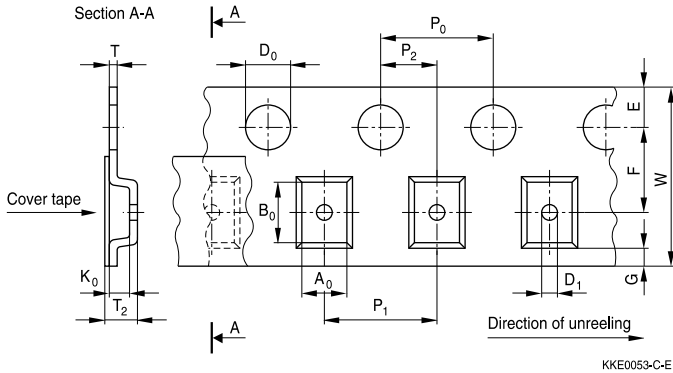
Date: August 2008

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Taping and packing

1 Taping and packing for SMD components

1.1 Blister tape (the taping to IEC 60286-3)



Dimensions in mm

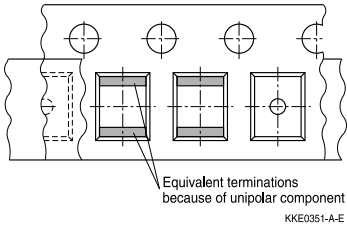
	8-mm tape					12-mm tape		16-mm tape		Tolerance
	Case size (inch/mm)					Case size (inch/mm)		Case size (inch/mm)		
		0508/ 1220	0612/ 1632	1012/ 2532						
	0603/ 1608	0506/ 1216	0805/ 2012	1206/ 3216	1210/ 3225	1812/ 4532	2220/ 5750	3225	4032	
A ₀	0.9 ±0.10	1.50	1.60	1.90	2.80	3.50	5.10	7.00	8.60	±0.20
B ₀	1.75 ±0.10	1.80	2.40	3.50	3.50	4.80	6.00	8.70	10.60	±0.20
K ₀	1.0	0.80	1.80			2.60		5.00		max.
T	0.30					0.30		0.30		max.
T ₂	1.3	1.20	2.50			3.50		5.50		max.
D ₀	1.50					1.50		1.50		+0.10/-0
D ₁	1.00					1.50		1.50		min.
P ₀	4.00					4.00		4.00		±0.10 ¹⁾
P ₂	2.00					2.00		2.00		±0.05
P ₁	4.00					8.00		12.00		±0.10
W	8.00					12.00		16.00		±0.30
E	1.75					1.75		1.75		±0.10
F	3.50					5.50		7.50		±0.05
G	0.75					0.75		0.75		min.

1) ≤±0.2 mm over 10 sprocket holes.

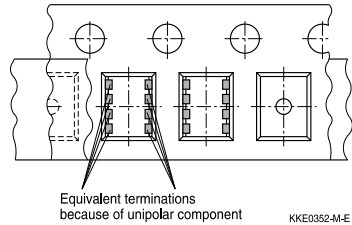
Taping and packing

Part orientation in tape pocket for blister tape

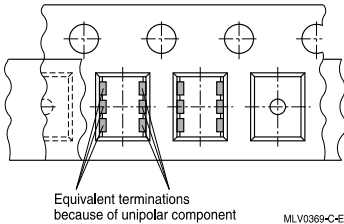
For discrete chip, case sizes 0603, 0805, 1206, 1210, 1812 and 2220



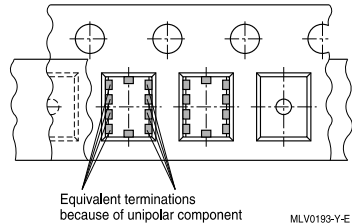
For array, case sizes 0612



For arrays 0506 and 1012



For filter array, case size 0508

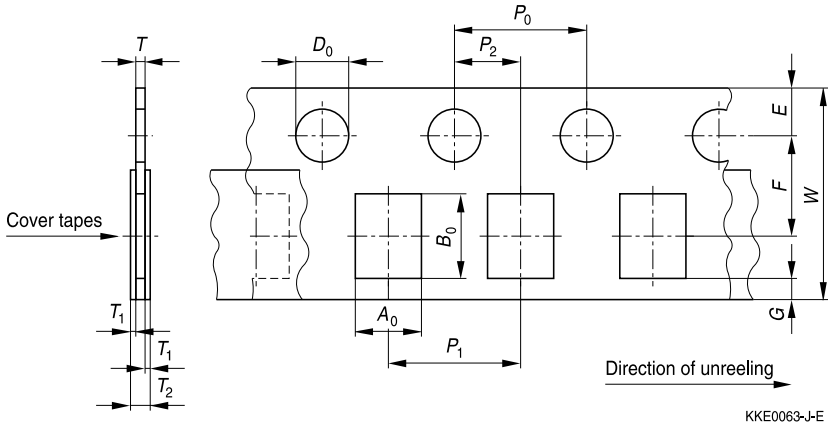


Additional taping information

Reel material	Polystyrol (PS)
Tape material	Polystyrol (PS) or Polycarbonat (PC) or PVC
Tape break force	min. 10 N
Top cover tape strength	min. 10 N
Top cover tape peel force	0.2 to 0.6 N for 8-mm tape and 0.2 to 0.8 N for 12-mm tape at a peel speed of 300 mm/min
Tape peel angle	Angle between top cover tape and the direction of feed during peel off: 165° to 180°
Cavity play	Each part rests in the cavity so that the angle between the part and cavity center line is no more than 20°

Taping and packing

1.2 Cardboard tape (taping to IEC 60286-3)



Dimensions in mm

	8-mm tape						Tolerance
	Case size (inch/mm)					Case size (inch/mm)	
	0201/0603	0402/1005	0405/1012	0603/1608	1003/2508	0508/1220	
A_0	0.38 ± 0.05	0.60	1.05	0.95	1.00	1.60	± 0.20
B_0	0.68 ± 0.05	1.15	1.60	1.80	2.85	2.40	± 0.20
T	0.35 ± 0.02	0.60	0.75	0.95	1.00	0.95	max.
T_2	0.4 min.	0.70	0.90	1.10	1.10	1.12	max.
D_0	1.50 ± 0.1	1.50				1.50	$+0.10/-0$
P_0	4.00						$\pm 0.10^{2)}$
P_2	2.00						± 0.05
P_1	2.00 ± 0.05	2.00	4.00	4.00	4.00	4.00	± 0.10
W	8.00						± 0.30
E	1.75						± 0.10
F	3.50						± 0.05
G	1.35	0.75					min.

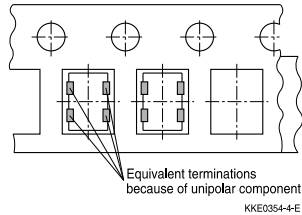
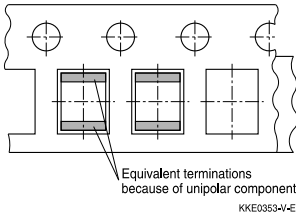
2) ≤ 0.2 mm over 10 sprocket holes.

Taping and packing

Part orientation in tape pocket for cardboard tape

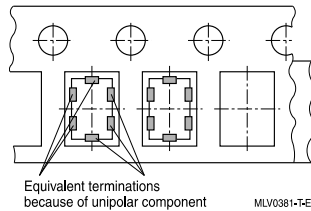
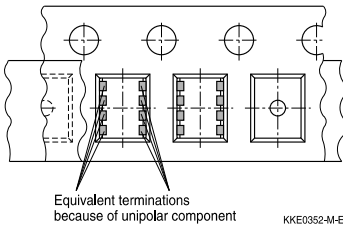
For discrete chip case sizes 0201, 0402, 0603 and 1003

For array case size 0405



For array case size 0508

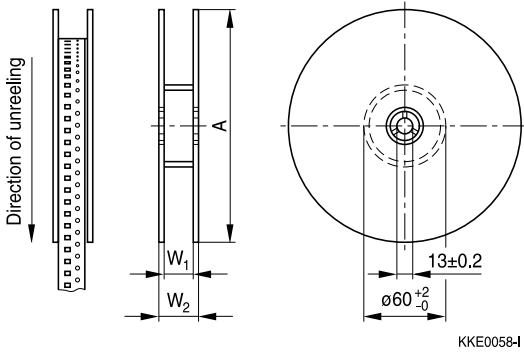
For filter array, case size 0405



Additional taping information

Reel material	Polystyrol (PS)
Tape material	Cardboard
Tape break force	min. 10 N
Top cover tape strength	min. 10 N
Top cover tape peel force	0.1 to 0.65 N at a peel speed of 300 mm/min
Tape peel angle	Angle between top cover tape and the direction of feed during peel off: 165° to 180°
Cavity play	Each part rests in the cavity so that the angle between the part and cavity center line is no more than 20°

1.3 Reel packing

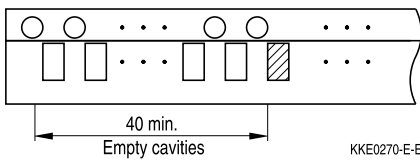


Dimensions in mm

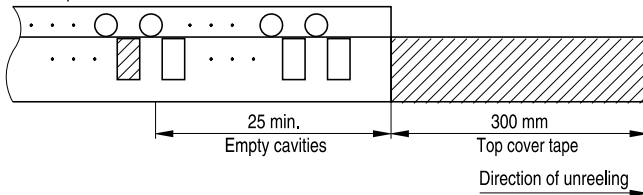
	8-mm tape		12-mm tape		16-mm tape
	180-mm reel	330-mm reel	180-mm reel	330-mm reel	330-mm reel
A	180 $-3/+0$	330 -2.0	180 $-3/+0$	330 -2.0	330 -2.0
W_1	8.4 $+1.5/-0$	8.4 $+1.5/-0$	12.4 $+1.5/-0$	12.4 $+1.5/-0$	16.4 $+1.5/-0$
W_2	14.4 max.	14.4 max.	18.4 max.	18.4 max.	22.4 max.

Leader, trailer

Tape end (Trailer)



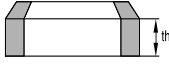
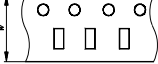
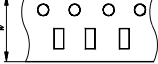


Leader part



KKE0289-Q-E

Taping and packing

1.4 Packing units for discrete chip and array chip

Case size inch/mm	 Chip thickness s	 Cardboard tape W	 Blister tape W	 Ø 180-mm reel pcs.	 Ø 330-mm reel pcs.
0201/0603	0.33 mm	8 mm	–	15000	–
0402/1005	0.6 mm	8 mm	–	10000	–
0405/1012	0.7 mm	8 mm	–	5000	–
0506/1216	0.5 mm	–	8 mm	4000	–
0508/1220	0.9 mm	8 mm	8 mm	4000	–
0603/1608	0.9 mm	8 mm	8 mm	4000	16000
0612/1632	0.9 mm	–	8 mm	3000	–
0805/2012	0.7 mm	–	8 mm	3000	–
	0.9 mm	–	8 mm	3000	12000
	1.3 mm	–	8 mm	3000	–
1003/2508	0.9 mm	8 mm	–	4000	–
1012/2532	1.0 mm	–	8 mm	2000	–
1206/3216	0.9 mm	–	8 mm	3000	–
	1.3 mm	–	8 mm	3000	–
	1.4 mm	–	8 mm	2000	–
	1.6 mm	–	8 mm	2000	–
1210/3225	0.9 mm	–	8 mm	3000	–
	1.3 mm	–	8 mm	3000	–
	1.4 mm	–	8 mm	2000	–
	1.6 mm	–	8 mm	2000	–
1812/4532	1.3 mm	–	12 mm	1500	–
	1.4 mm	–	12 mm	1000	–
	1.6 mm	–	12 mm	–	4000
	2.3 mm	–	12 mm	–	3000
2220/5750	1.3 mm	–	12 mm	1500	–
	1.4 mm	–	12 mm	1000	–
	2.0 mm	–	12 mm	–	3000
	2.3 mm	–	12 mm	–	3000
3225	3.2 mm	–	16 mm	–	1000
	4.5 mm	–	16 mm	–	1000
4032	3.2 mm	–	16 mm	–	1000
	4.5 mm	–	16 mm	–	1000

Taping and packing

2 Delivery mode for leaded SHCV varistors

Standard delivery mode for SHCV types is bulk. Alternative taping modes (AMMO pack or taped on reel) are available upon request.

Packing units for:

Type	Pieces
SR6	2000
SR1 / SR2	1000

For types not listed in this data book please contact EPCOS.