



Product Change Notification



Product Group: Vishay Tantalum capacitors / December 16, 2019 / PCN-TC-006-2019 Rev 0

Change of anode terminal design and unification of A-case Cu lead frame

DESCRIPTION OF CHANGE: Minor terminal design change

CLASSIFICATION OF CHANGE: Terminal design

REASON FOR CHANGE: Simplification of process by unifying slitless and A-case Cu lead frames

EXPECTED INFLUENCE ON QUALITY/RELIABILITY/PERFORMANCE: No influence

PRODUCT CATEGORY: Tantalum capacitors

PART NUMBERS/SERIES/FAMILIES AFFECTED: T55 series, A and B case

VISHAY BRAND(s): Vishay Polytech

TIME SCHEDULE:

Start Shipment Date: April 1, 2020

SAMPLE AVAILABILITY: upon request

PRODUCT IDENTIFICATION: Based on date code

QUALIFICATION DATA: Data is available upon request

This PCN is considered approved, without further notification, unless we receive specific customer concerns before February 6, 2020 or as specified by contract.

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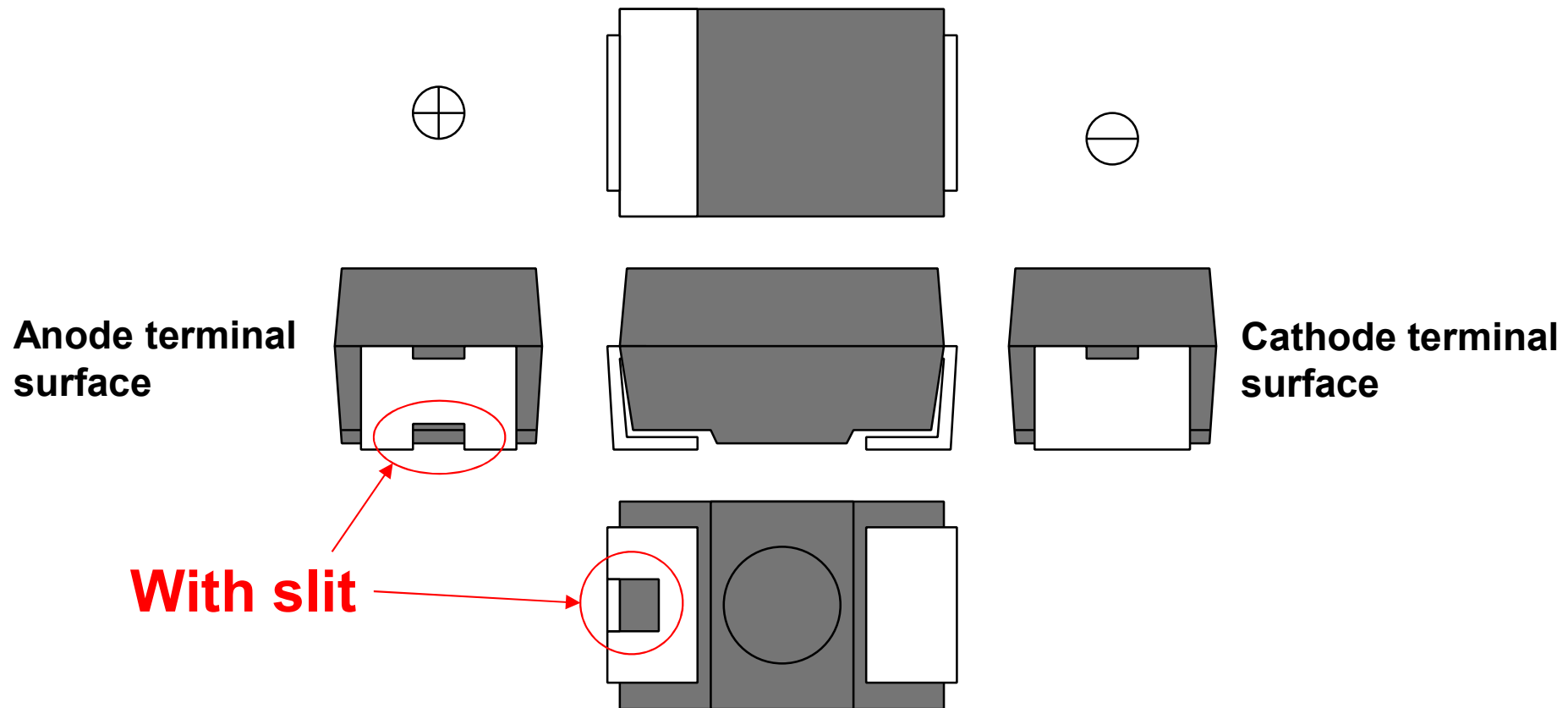
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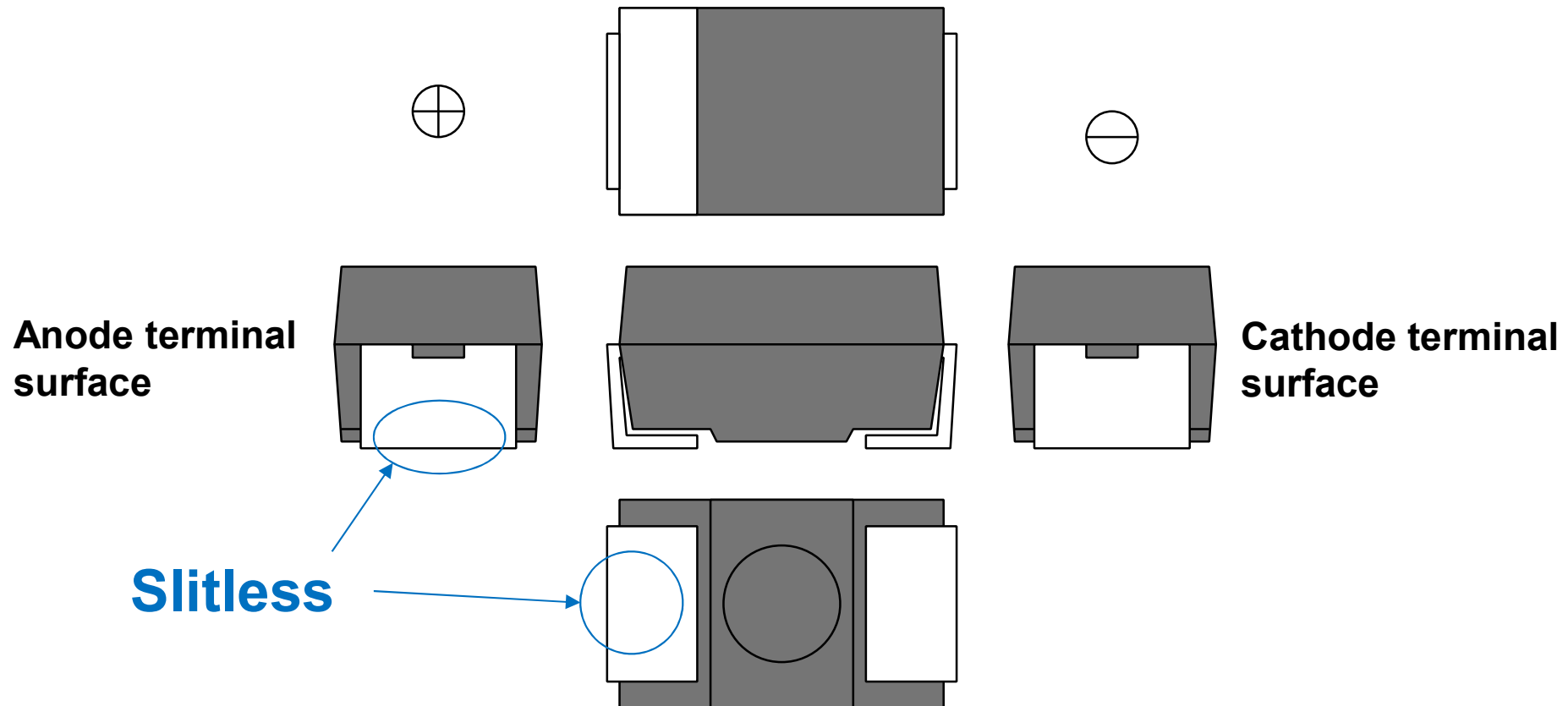
ONE OF THE WORLD'S LARGEST MANUFACTURERS OF DISCRETE SEMICONDUCTORS AND PASSIVE COMPONENT



T55 (A&B case) PREVIOUS TERMINAL DESIGN (Anode terminal)



T55 (A&B case) NEW TERMINAL DESIGN (Anode terminal)





1. Solderability test result

1. Solderability

p/n	Lot #	Note
T55A107M6R3C0045	89A493	With Slit
T55A107M6R3C0045	98Z002B	Slitless
T55B156M025C0100	98A589	With Slit
T55B156M025C0100	98Z001	Slitless

Sample Size: 10

Test	Reference	Test Conditions
Solderability	JIS C 5101 - 1 subclause 4.15	Solder dipping 230±2°C, 3sec Without pre-heat

Test Results:

Type	Appearance	Result	Note
100µF +/-20% 6.3V, A Case Size	OK	Pass	With Slit
100µF +/-20% 6.3V, A Case Size	OK	Pass	Slitless
15µF +/-20% 25V, B Case Size	OK	Pass	With Slit
15µF +/-20% 25V, B Case Size	OK	Pass	Slitless



2. Terminal Strength test result

2. Terminal Strength (SMD)

p/n	Lot #	Note
T55A107M6R3C0045	89A493	With Slit
T55A107M6R3C0045	98Z002B	Slitless
T55B156M025C0100	98A589	With Slit
T55B156M025C0100	98Z001	Slitless

Sample Size: 30

Test	Reference	Test Conditions
Terminal Strength (SMD)	AEC-Q200-006	17.7N for 60 seconds

Test Results:

Type	Appearance	Result	Note
100 μ F +/-20% 6.3V, A Case Size	OK	Pass	With Slit
100 μ F +/-20% 6.3V, A Case Size	OK	Pass	Slitless
15 μ F +/-20% 25V, B Case Size	OK	Pass	With Slit
15 μ F +/-20% 25V, B Case Size	OK	Pass	Slitless



3. Board Flex test result

3. Board Flex

p/n	Lot #	Note
T55A107M6R3C0045	89A493	With Slit
T55A107M6R3C0045	98Z002B	Slitless
T55B156M025C0100	98A589	With Slit
T55B156M025C0100	98Z001	Slitless

Sample Size: 10

Test	Reference	Test Conditions
Board Flex	JIS C 5101 - 1 subclause 4.35	2.0 mm for 60 seconds

Test Results:

Type	Appearance	Result	Note
100 μ F +/-20% 6.3V, A Case Size	OK	Pass	With Slit
100 μ F +/-20% 6.3V, A Case Size	OK	Pass	Slitless
15 μ F +/-20% 25V, B Case Size	OK	Pass	With Slit
15 μ F +/-20% 25V, B Case Size	OK	Pass	Slitless



4. Vibration, Mechanical Shock sequence

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4-1. Mechanical Shock

p/n	Lot #	Test method	Test Conditions	Sample size/ Allowed failures	Note
T55A107M6R3C0045	98Z002B	MIL-STD-202 Method 213 Condition F	0.5ms pulse, 1500g	30 / 0	Slitless
T55B156M025C0100	98Z001			30 / 0	Slitless

4-2. Vibration

p/n	Lot #	Test method	Test Conditions	Sample size/ Allowed failures	Note
T55A107M6R3C0045	98Z002B	MIL-STD-202 Method 204	20g, 4h on each of 3 axis	30 / 0	Slitless
T55B156M025C0100	98Z001			30 / 0	Slitless



4. Vibration, Mechanical Shock sequence

4-1. Mechanical Shock sequence

Test Results:

Tested part number: 100 μ F +/-20% 6.3V, A Case Size

	Cap (μ F)	DF (%)	DCL (μ A)
Minimum	95.995	3.202	3.939
Maximum	98.831	3.897	15.445
Mean	97.526	3.457	5.004
St. Dev	0.738	0.154	2.020
Cpk or Cp	10.151	14.159	30.356
Post test Limit:	80-120	10	189

Tested part number: 15 μ F +/-20% 25V, B Case Size

	Cap (μ F)	DF (%)	DCL (μ A)
Minimum	13.153	1.590	0.008
Maximum	13.877	2.069	0.284
Mean	13.607	1.846	0.092
St. Dev	0.203	0.113	0.077
Cpk or Cp	7.199	18.152	485.965
Post test Limit:	12-18	8	112.5



4. Vibration, Mechanical Shock sequence

4-2. Vibration

Test Results:

Tested part number: 100 μ F +/-20% 6.3V, A Case Size

	Cap (μ F)	DF (%)	DCL (μ A)
Minimum	96.453	3.332	2.055
Maximum	100.072	4.171	11.706
Mean	98.106	3.601	3.765
St. Dev	0.816	0.187	1.669
Cpk or Cp	8.939	11.376	36.988
Post test Limit:	80-120	10	189

Tested part number: 15 μ F +/-20% 25V, B Case Size

	Cap (μ F)	DF (%)	DCL (μ A)
Minimum	13.231	1.691	0.004
Maximum	13.996	2.174	0.261
Mean	13.679	1.973	0.068
St. Dev	0.210	0.108	0.072
Cpk or Cp	6.874	18.638	521.863
Post test Limit:	12-18	8	112.5