



SOLID-ELECTROLYTE TANTALUM CAPACITORS

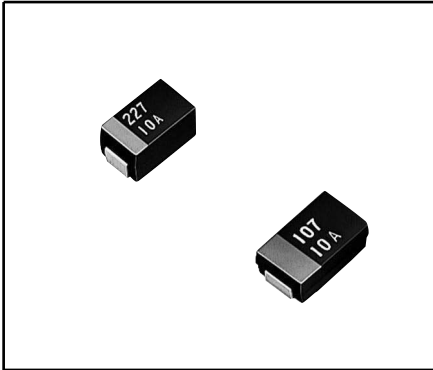
(TANCHIP® SERIES)

TYPE 281

Epoxy resin molding chip
Ultra Low ESR

⚠ CAUTIONS

- This capacitor is polarized, do not apply reverse voltage.
- The sum of peak value of AC and DC voltage should not exceed the rated voltage.
- This catalog is designed for providing general information. Please inquire of our Sales Department to confirm specifications prior to use.



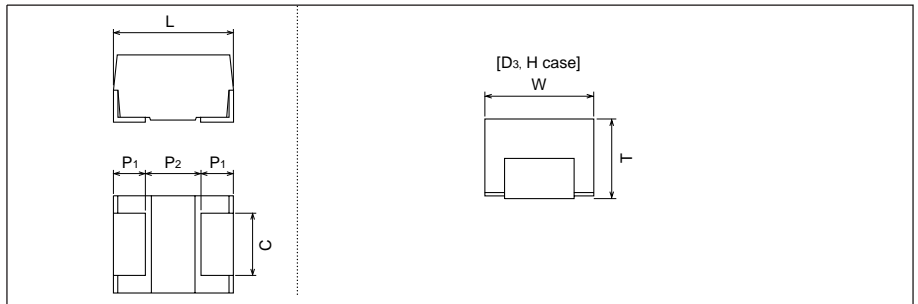
Type 281 is Ultra Low ESR series based on Type 267.

CHARACTERISTICS

ITEM	CHARACTERISTICS
Failure rate level	1%/1000h
Operating temperature range	-55~+85°C to +125°C with voltage derating
Rated voltage	4-6.3-10-16-20-25-35VDC
Capacitance range	4.7~330μF
Capacitance tolerance	±10%, ±20%

DIMENSIONS

mm



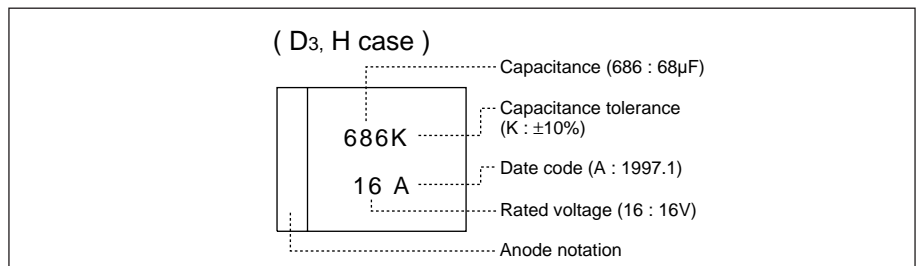
Case code	EIA code	L±0.2	W±0.2	T±0.2	P1±0.2	P2 min.	C±0.1
D ₃	7343	7.3	4.4	2.8	1.3	4.0	2.4
H	7343H	7.3	4.4	4.1	1.3	4.0	2.4

D₃ Case is in conformity with EIA-535BAAC.

FEATURES

1. Suitable for surface mounting.
2. Precise dimensions allow high density packaging. Symmetrical construction of positive and negative terminals provides "Self Alignment".
3. Soldering: 260°C for 10 second by re-flow or flow soldering.
4. This type is suitable for medium to high frequency circuit as high speed PC, switching regulators, DC/DC convertor for high quality voltage source, etc.

MARKING



STANDARD RATINGS

Cap.	R.V.	4	6.3	10	16	20	25	35
4.7								D ₃
6.8								D ₃
10								D ₃
15							D ₃	H
22						D ₃	D ₃ ,H	H
33					D ₃	D ₃ ,H	H	
47				D ₃	D ₃ ,H			
68			D ₃	D ₃ ,H		H		
100	D ₃	D ₃	D ₃ ,H	H				
150	D ₃	D ₃	H					
220	D ₃	H	H					
330			H					

NOTIFICATIONS FOR USE

Please inquire of our Sales Department for your suitable soldering or cleaning conditions.





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(TANCHIP® SERIES)

TYPE 281
Epoxy resin molding chip
Ultra Low ESR

RATINGS AND CATALOG NUMBERS

	Catalog number			cap. (μF)	case code	Max DC Lct. (μA)			Max Dissipation factor				Max ESR(Ω) 100kHz	
						20°C	85°C	125°C	-55°C	20°C	85°C	125°C		
Rated voltage 4VDC/Surge voltage 5VDC	281M	4001	107		100	D ₃	4.0	40	50	0.10	0.08	0.08	0.08	0.200
	281E	4001	157		150	D ₃	6.0	60	75	0.10	0.08	0.08	0.08	0.100
	281E	4001	227		220	D ₃	8.8	88	110	0.15	0.08	0.08	0.10	0.100
Rated voltage 6.3VDC/Surge voltage 8VDC	281M	6301	686		68	D ₃	4.3	43	54	0.08	0.06	0.06	0.06	0.200
	281E	6301	107		100	D ₃	6.3	63	79	0.10	0.08	0.08	0.08	0.100
	281E	6301	157		150	D ₃	9.5	95	118	0.15	0.08	0.08	0.10	0.100
	281E	6301	227		220	H	14	139	173	0.15	0.08	0.08	0.10	0.100
	281E	6301	337		330	H	21	208	260	0.15	0.08	0.08	0.10	0.100
Rated voltage 10VDC/Surge voltage 13VDC	281M	1002	476		47	D ₃	4.7	47	59	0.08	0.06	0.06	0.06	0.200
	281E	1002	686		68	D ₃	6.8	68	85	0.08	0.06	0.06	0.08	0.175
	281M	1002	686		68	H	6.8	68	85	0.08	0.06	0.06	0.06	0.150
	281E	1002	107		100	D ₃	10	100	130	0.15	0.08	0.08	0.10	0.100
	281M	1002	107		100	H	10	100	125	0.10	0.08	0.08	0.08	0.100
	281E	1002	157		150	H	15	150	188	0.15	0.08	0.08	0.10	0.100
	281E	1002	227		220	H	22	220	275	0.15	0.08	0.08	0.10	0.100
	281E	1002	337		330	H	33	330	412	0.15	0.08	0.08	0.10	0.100
Rated voltage 16VDC/Surge voltage 20VDC	281M	1602	336		33	D ₃	5.3	53	66	0.08	0.06	0.06	0.06	0.225
	281E	1602	476		47	D ₃	7.5	75	94	0.08	0.06	0.06	0.08	0.150
	281M	1602	476		47	H	7.5	75	94	0.08	0.06	0.06	0.06	0.150
	281E	1602	107		100	H	16	160	200	0.15	0.08	0.08	0.10	0.100
Rated voltage 20VDC/Surge voltage 26VDC	281M	2002	226		22	D ₃	4.4	44	55	0.08	0.06	0.06	0.06	0.225
	281E	2002	336		33	D ₃	6.6	66	83	0.08	0.06	0.06	0.08	0.200
	281M	2002	336		33	H	6.6	66	83	0.08	0.06	0.06	0.06	0.200
	281E	2002	686		68	H	14	136	170	0.08	0.06	0.06	0.08	0.150
Rated voltage 25VDC/Surge voltage 32VDC	281M	2502	156		15	D ₃	3.8	38	47	0.08	0.06	0.06	0.06	0.275
	281E	2502	226		22	D ₃	5.5	55	69	0.08	0.06	0.06	0.08	0.200
	281M	2502	226		22	H	5.5	55	69	0.08	0.06	0.06	0.06	0.200
	281M	2502	336		33	H	8.3	83	103	0.08	0.06	0.06	0.06	0.225
Rated voltage 35VDC/Surge voltage 44VDC	281M	3502	475		4.7	D ₃	1.6	16	21	0.08	0.06	0.06	0.06	0.400
	281M	3502	685		6.8	D ₃	2.4	24	30	0.08	0.06	0.06	0.06	0.350
	281M	3502	106		10	D ₃	3.5	35	44	0.08	0.06	0.06	0.06	0.300
	281M	3502	156		15	H	5.3	55	66	0.08	0.06	0.06	0.06	0.225
	281M	3502	226		22	H	7.7	77	96	0.08	0.06	0.06	0.06	0.250

¹ capacitance tolerance code "K" (±10%) or "M" (±20%)

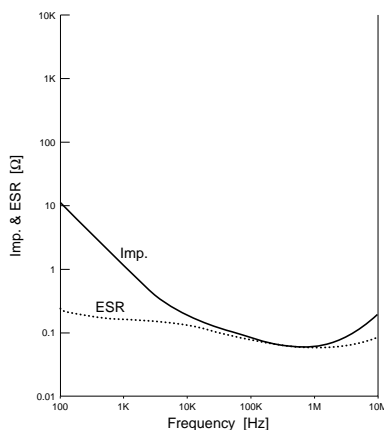
² taping code "R" ("N") or "L" ("P")

Pull direction "R" ("N") is standard.

* Please contact our Sales Department if you have requirements for lower ESR.

FREQUENCY CHARACTERISTICS

H Case 10V 150μF



H Case 10V 220μF

