

## vPolyTan™ Solid Tantalum Surface-Mount Chip Capacitors, Molded Case, High-Performance Polymer Type



### KEY BENEFITS

- Low ESR from 500 mΩ down to 30 mΩ
- Requires only 20% derating
- Small sizes: J (1608-09), P (2012-12), A (3216-18), B (3528-21) and T (3528-12)
- Capacitance from 3.3 μF to 330 μF
- Voltage from 2.5 V to 10 V
- RoHS-compatible

### APPLICATIONS

- Laptop computers and tablets
- Smartphones
- Wireless cards
- USB port decoupling

### RESOURCES

- Datasheet: T55 - [www.vishay.com/doc?40174](http://www.vishay.com/doc?40174)
- For technical questions contact [tantalum@vishay.com](mailto:tantalum@vishay.com)
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



HALOGEN  
**FREE**

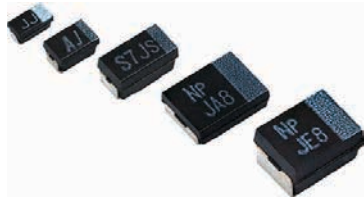
**GREEN**  
(5-2009)

**RoHS**  
COMPLIANT

One of the World's Largest Manufacturers of  
Discrete Semiconductors and Passive Components



## vPolyTan™ Solid Tantalum Surface-Mount Chip Capacitors, Molded Case, High-Performance Polymer Type



### PERFORMANCE / ELECTRICAL CHARACTERISTICS

**Operating Temperature:** -55 °C to +105 °C  
(above 85 °C, voltage derating is required)

**Capacitance Range:** 3.3 μF to 330 μF

**Capacitance Tolerance:** ± 20 %

**Voltage Rating:** 2.5 V<sub>DC</sub> to 10 V<sub>DC</sub>

### FEATURES

- Ultra-low ESR
- Molded case available in 5 case codes
- Terminations:  
cases J, P, and A: 100 % tin  
cases B and T: Ni/Pd/Au
- Compatible with high-volume automatic pick and place equipment
- Moisture sensitivity level 3
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

### APPLICATIONS

- Decoupling, smoothing, filtering
- Bulk energy storage in wireless cards
- Infrastructure equipment
- Storage and networking
- Computer motherboards
- Smartphones and tablets

### ORDERING INFORMATION

T55 TYPE	B CASE CODE	156 CAPACITANCE	M CAPACITANCE TOLERANCE	6R3 DC VOLTAGE RATING AT +85 °C	C TERMINATION / PACKAGING	0500 ESR
	See Ratings and Case Codes table	This is expressed in picofarads. The first two digits are the significant figures. The third is the number of zeros to follow.	M = ± 20 %	This is expressed in volts. To complete the three-digit block, zeros precede the voltage rating. A decimal point is indicated by an "R" (6R3 = 6.3 V)	C = lead (Pb)-free solderable coating, 7" reel	Maximum 100 kHz ESR in mΩ

### RATINGS AND CASE CODES

μF	2.5 V	4.0 V	6.3 V	10 V
3.3			J / P	J / P
4.7			J / P / A	P / A
6.8			P / A	A
10		J / P / A	P / A	A
15		P / A	A	A
22		A / B	A	A / T / B
33		A / B	A / T / B	A / T / B
47		A / T / B	A / T / B	B
68		A / T / B	T / B	
100		T / B	A / B	
150		B	B	
220	B	B	B	
330	B			

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