

HUE Series

Features

- 145°C, 2,000 hours assured
- Low ESR and High ripple current
- RoHS compliant
- AEC-Q200 compliant

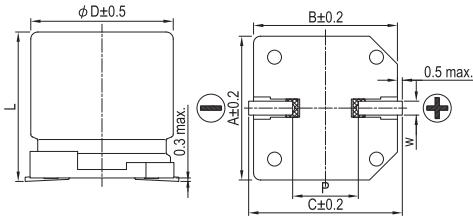


Marking color: Dark Green

Specifications

Items	Performance																	
Category Temperature Range	-55°C ~ +145°C																	
Capacitance Tolerance	±20% (at 120 Hz, 20°C)																	
Leakage Current (at 20°C)	I = 0.01CV or 3 (μA) whichever is greater (after 2 minutes) Where, C = rated capacitance in μF, V = rated DC working voltage in V																	
Tanδ (at 120 Hz, 20°C)	See Standard Ratings																	
Low Temperature Characteristics (at 100k Hz)	Impedance ratio shall not exceed the values given in the table below																	
	<table border="1"> <thead> <tr> <th colspan="2">Rated Voltage</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Impedance ratio</td> <td>Z (-25°C) / Z (+20°C)</td> <td>1.5</td> <td>1.5</td> <td>1.5</td> <td>1.5</td> </tr> <tr> <td>Z (-55°C) / Z (+20°C)</td> <td>2.0</td> <td>2.0</td> <td>2.0</td> <td>2.0</td> </tr> </tbody> </table>	Rated Voltage		25	35	50	63	Impedance ratio	Z (-25°C) / Z (+20°C)	1.5	1.5	1.5	1.5	Z (-55°C) / Z (+20°C)	2.0	2.0	2.0	2.0
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Shelf Life Test	* The above specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied with rated ripple current for: 2,000 hours at 145°C / 4,000 hours at 135°C.																	
Resistance to Soldering Heat (Please refer to page 15 for reflowsoldering conditions)	* After storage for 1,000 hours at 145 ± 2°C with no voltage applied and then being stabilized at 20°C, capacitors shall meet the limits specified in Endurance. (With voltage treatment)																	
Ripple Current and Frequency Multipliers	<table border="1"> <thead> <tr> <th>Capacitance Change</th> <td>Within ±10% of initial value</td> </tr> <tr> <th>Tanδ</th> <td>Within specified value</td> </tr> <tr> <th>ESR</th> <td>Within specified value</td> </tr> <tr> <th>Leakage Current</th> <td>Within specified value</td> </tr> </thead> </table>	Capacitance Change	Within ±10% of initial value	Tanδ	Within specified value	ESR	Within specified value	Leakage Current	Within specified value									
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Diagram of Dimensions

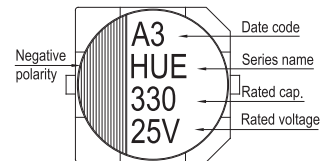


Lead Spacing and Diameter

φ D	L	A	B	C	W	P ± 0.2
8	10.0 ± 0.5	8.3	8.3	9.0	0.7 ~ 1.1	3.1
10	10.0 ± 0.5	10.3	10.3	11.0	0.7 ~ 1.3	4.7

Unit: mm

Marking



Standard Ratings

Dimension: φ D×L(mm)

Ripple Current: mA/rms at 100k Hz

Rated Voltage (V)	Surge Voltage (V)	Capacitance (μF)	Size φ D×L(mm)	Tanδ (120 Hz, 20°C)	L C (μA)	E S R (mΩ/at 100kHz, 20°C max.)	Rated R. C. (mA/rms at 100k Hz.)	
							135°C	145°C
25V (1E)	28.8	220	8 × 10	0.14	55.0	27	1,600	700
		330	10 × 10	0.14	82.5	20	2,000	900
35V (1V)	40.3	150	8 × 10	0.12	52.5	27	1,600	700
		270	10 × 10	0.12	94.5	20	2,000	900
50V (1H)	57.5	68	8 × 10	0.10	34.0	30	1,250	600
		100	10 × 10	0.10	50.0	28	1,600	800
63V (1J)	72.5	33	8 × 10	0.08	20.8	40	1,100	600
		56	10 × 10		35.3	30	1,400	800
		82	10 × 10		51.7	30	1,400	800

Part Numbering System

HUE Series 220μF ±20% 25V Carrier Tape 8 φ × 10L General Purpose

HUE 221 M 1E TR - 0810

Series Name | Capacitance | Capacitance Tolerance | Rated Voltage | Package Type | Terminal Type | Case Size | Application

Note: For more details, please refer to "Part Numbering System" on page 87.