

HSE Series New!

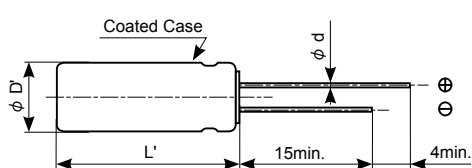
- High reliability and high voltage are realized by hybrid electrolyte.
- Endurance with ripple current : 4,000 hours at 135°C
- Rated voltage range : 25 to 63V_{dc}, Capacitance range : 100 to 330μF
- For high temperature and high reliability applications.
(Automotive equipment, Base station equipment, etc.)
- RoHS Compliant
- Halogen Free.
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.

◆ SPECIFICATIONS

Items	Characteristics										
Category											
Temperature Range	-55 to +135°C										
Rated Voltage Range	25 to 63V _{dc}										
Capacitance Tolerance	±20% (M) (at 20°C , 120Hz)										
Leakage Current	I=0.05CV Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 2 minutes)										
Dissipation Factor (tan δ)	0.16 max. (at 20°C , 120Hz)										
Low Temperature Characteristics (Max. Impedance Ratio)	Z(-25°C) / Z(+20°C) ≤ 1.5 Z(-55°C) / Z(+20°C) ≤ 2.0 (at 100kHz)										
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 4,000 hours at 125°C or 135°C . <table border="1" style="width: 100%;"> <tr> <td>Capacitance change</td> <td>≤ ±30% of the initial value</td> </tr> <tr> <td>D.F. (tan δ)</td> <td>≤ 200% of the initial specified value</td> </tr> <tr> <td>ESR</td> <td>≤ 200% of the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>≤ The initial specified value</td> </tr> </table>	Capacitance change	≤ ±30% of the initial value	D.F. (tan δ)	≤ 200% of the initial specified value	ESR	≤ 200% of the initial specified value	Leakage current	≤ The initial specified value		
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Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 135°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4. <table border="1" style="width: 100%;"> <tr> <td>Capacitance change</td> <td>≤ ±30% of the initial value</td> </tr> <tr> <td>D.F. (tan δ)</td> <td>≤ 200% of the initial specified value</td> </tr> <tr> <td>ESR</td> <td>≤ 200% of the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>≤ The initial specified value</td> </tr> </table>	Capacitance change	≤ ±30% of the initial value	D.F. (tan δ)	≤ 200% of the initial specified value	ESR	≤ 200% of the initial specified value	Leakage current	≤ The initial specified value		
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Bias Humidity Test	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjecting them to the DC rated voltage at 85°C , 85% RH for 2,000 hours. <table border="1" style="width: 100%;"> <tr> <td>Appearance</td> <td>No significant damage</td> </tr> <tr> <td>Capacitance change</td> <td>≤ ±30% of the initial value</td> </tr> <tr> <td>D.F. (tan δ)</td> <td>≤ 200% of the initial specified value</td> </tr> <tr> <td>ESR</td> <td>≤ 200% of the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>≤ The initial specified value</td> </tr> </table>	Appearance	No significant damage	Capacitance change	≤ ±30% of the initial value	D.F. (tan δ)	≤ 200% of the initial specified value	ESR	≤ 200% of the initial specified value	Leakage current	≤ The initial specified value
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◆ DIMENSIONS [mm]

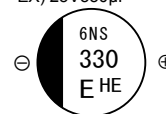
- Terminal Code : E



Size code	JC5
φ D	10
φ d	0.6
F	5.0
φ D'	φ D+0.5 max.
L'	L+1.5 max.

◆ MARKING

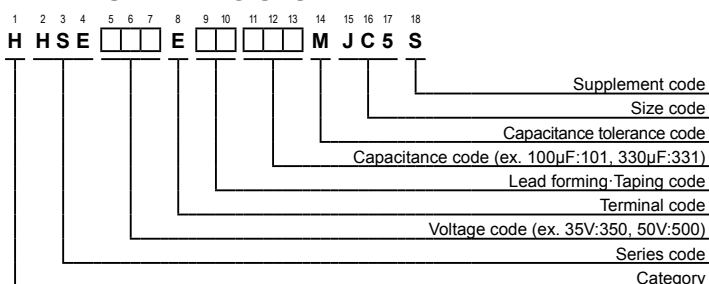
EX) 25V330μF



- Rated voltage symbol

Rated voltage (V _{dc})	Symbol
25	E
35	V
50	H
63	J

◆ PART NUMBERING SYSTEM



Product specifications in this bulletin are subject to change without notice. Request our product specifications before purchase and/or use. Please use our products based on the information contained in this bulletin and product specifications. Please contact us for mass production schedule.

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Series

◆ **STANDARD RATINGS**

VV (Vdc)	Cap (μF)	Case size φ D×L(mm)	ESR (mΩ max./20°C , 100kHz)	Rated ripple current (mA rms/, 100kHz)		Part No.
				125°C	135°C	
25	330	10×12.5	16	3,800	2,300	HHSE250E□□331MJC5S
35	270	10×12.5	17	3,700	2,200	HHSE350E□□271MJC5S
50	120	10×12.5	19	3,500	2,100	HHSE500E□□121MJC5S
63	100	10×12.5	20	3,400	2,000	HHSE630E□□101MJC5S

□□ :Enter the appropriate lead forming or taping code.

◆ **RECOMMENDED SOLDERING HEAT CONDITIONS**

Preheat :150°C max. 120 seconds max.

Flow soldering :260+5°C max. 10+1 seconds max.