

HSD Series

- High reliability and high voltage are realized by hybrid electrolyte
- Endurance with ripple current : 10,000 hours at 105°C
- Rated voltage range : 80V_{dc}, Capacitance range : 68μF
- For high temperature and high reliability applications.
(Power supply for server, power supply for communication equipment, etc.)
- RoHS Compliant
- Halogen Free.

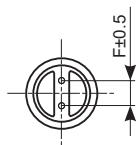
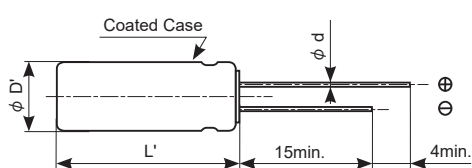


◆ SPECIFICATIONS

Items	Characteristics										
Category											
Temperature Range	-55 to +105°C										
Rated Voltage Range	80V _{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)	0.12 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 10,000 hours at 105°C . <table border="1"> <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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ESR	≤ 200% of the initial specified value										
Leakage current	≤ The initial specified value										
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°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"> <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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Leakage current	≤ The initial specified value										
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"> <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'	10+0.5 max.
L'	12.5+1.5 max.

◆ MARKING

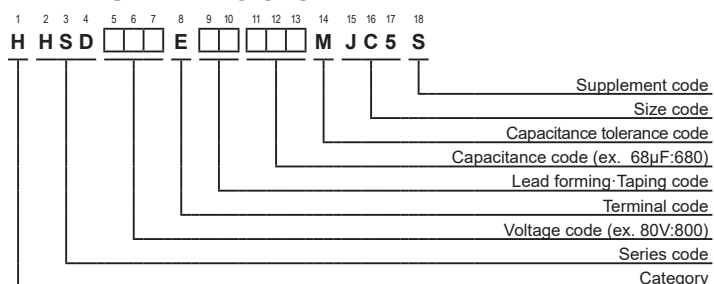
EX) 80V68μF



- Rated voltage symbol

Rated voltage (V _{dc})	Symbol
80	K

◆ PART NUMBERING SYSTEM



Please contact us for mass production schedule.
Specifications in this bulletin are subject to change without notice.

HSD Series

◆ STANDARD RATINGS

WV (Vdc)	Cap (μ F)	Case size ϕ D×L(mm)	ESR (m Ω max./20°C , 100kHz)	Rated ripple current (mA _{rms} /105°C , 100kHz)	Part No.
80	68	10×12.5	28	3,000	HHSD800E□□680MJC5S

□□ :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.

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