

# HXC Series

- High reliability and high voltage are realized by hybrid electrolyte
- Endurance with ripple current : 4,000 hours at 125°C
- Rated voltage range : 16 to 35V<sub>dc</sub>, Capacitance range : 150 to 470μF
- For high temperature and high reliability applications.  
(Automotive equipment, Base station equipment, etc.)
- Halogen Free.

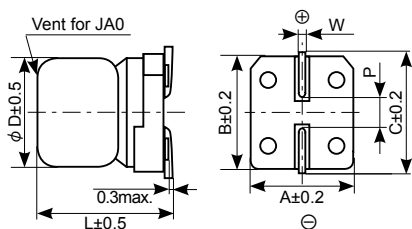


## SPECIFICATIONS

Items	Characteristics
Category	
Temperature Range	-55 to +125°C
Rated Voltage Range	16 to 35V <sub>dc</sub>
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)
Leakage Current	I=0.01CV Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 2 minutes)
Dissipation Factor (tan δ)	Rated voltage (V <sub>dc</sub> )
	tan δ (Max.)
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 .
Shelf Life	Capacitance change
	D.F. (tan δ)
	ESR
	Leakage current
Bias Humidity Test	Appearance
	Capacitance change
	D.F. (tan δ)
	ESR
	Leakage current
	Leakage current
	Leakage current
	Leakage current

## DIMENSIONS [mm]

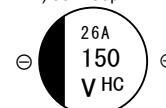
- Terminal Code : A



Size Code	φ D	L	A	B	C	W	P
HA0	8	10.0	8.3	8.3	9.0	0.7 to 1.1	3.1
JA0	10	10.0	10.3	10.3	11.0	0.7 to 1.1	4.5

## MARKING

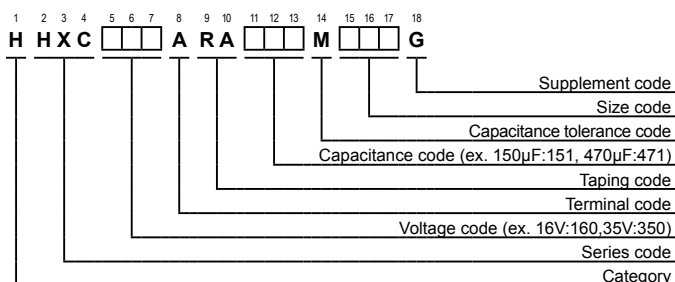
EX) 35V150μF



- Rated voltage symbol

Rated voltage (V <sub>dc</sub> )	Symbol
16	C
25	E
35	V

## PART NUMBERING SYSTEM



Please contact us for mass production schedule.  
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## ◆ STANDARD RATINGS

WV (V <sub>dc</sub> )	Cap (μF)	Size code	ESR (mΩ max/20°C, 100kHz)	Rated ripple current (mA rms/125°C, 100kHz)	Part No.
16	270	HA0	22	1,700	HHXC160ARA271MHA0G
	470	JA0	18	2,100	HHXC160ARA471MJA0G
25	220	HA0	27	1,600	HHXC250ARA221MHA0G
	330	JA0	20	2,000	HHXC250ARA331MJA0G
35	150	HA0	27	1,600	HHXC350ARA151MHA0G
	270	JA0	20	2,000	HHXC350ARA271MJA0G

## ◆ RECOMMENDED REFLOW SOLDERING CONDITIONS

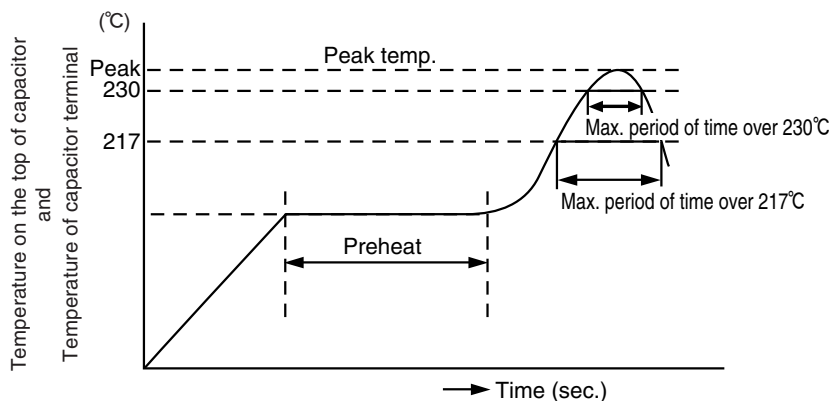
The following conditions are recommended for air convection and infrared reflow soldering on the SMD products on to a glass epoxy circuit boards by cream solder. The dimensions of the glass epoxy boards with resist are 90×50×0.8mm.

The temperatures shown are the surface temperature values on the top of the can and on the capacitor terminals.

Reflow should be performed twice or less.

Please ensure that the capacitor became cold enough to the room temperature (5 to 35°C) before the second reflow.

### ● Reflow Profile



Size Code	Preheat	Time maintained above 217°C	Time maintained above 230°C	Peak temp.	Reflow number
HA0, JA0	150 to 180°C 120 sec. max.	50 sec. max.	40 sec. max.	260°C max.	1-cycle only
				245°C max.	2-cycle allowed

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