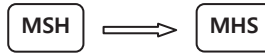




MHS series

- 105°C 3,000Hrs assured.
- Low profile sized
- For SMPS
- RoHS compliant
- Halogen-free capacitors are also available.

Low profile RoHS Compliant



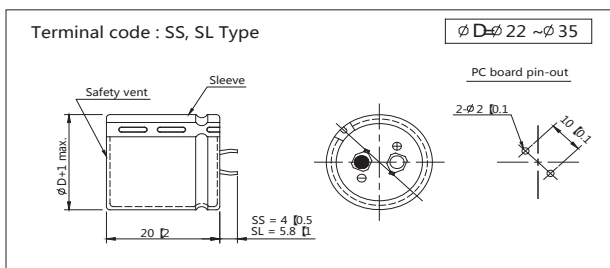
Low profile



Specifications

Item	Characteristics	
Rated Voltage Range	200 ~ 250 Vdc	400 ~ 450 Vdc
Operating Temperature Range	-40 ~ +85°C	-25 ~ +85°C
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)	
Leakage Current	I=0.02CV or 3mA whichever is smaller Where, I:Max. Leakage current(µA), C:Nominal capacitance(µF), V:Rated voltage(Vdc) (at 20°C, 5min)	
Dissipation Factor(Tanδ)	Rated voltage (Vdc)	200 ~ 400 450
	Tanδ (max.)	0.15 0.20
Temperature characteristics (Max,impedance ratio)	Rated voltage (Vdc)	200 ~ 250 400, 450
	Z(-25°C)/Z(20°C)	3 8
	Z(-40°C)/Z(20°C)	12 -
Load life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for specified life times at 105°C 3,000hrs. Capacitance change ≤±20% of the initial value Tan δ ≤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. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes at least 24 hours and not more than 48 hours before the measurements. Capacitance change ≤±20% of the initial value Tanδ ≤200% of the initial specified value Leakage current ≤The initial specified value	

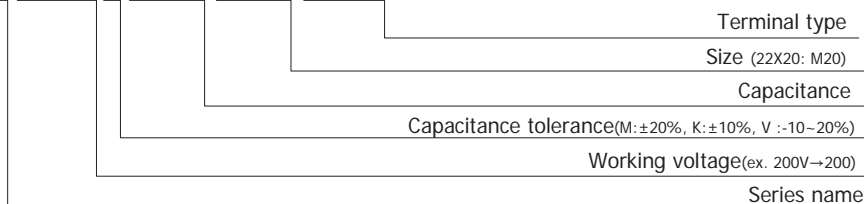
Dimensions



- Printed white color letter on brown sleeve
- The standard design has no bottom plate

Code numbering system

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
M H S □ □ □ M □ □ □ □ □ □ □ □ □ □



Ø22	M
Ø25	N
Ø30	O
Ø35	P

Rated ripple current multipliers

Vdc \ Freq. (Hz)	120	1K	10K	50K	100K
200 ~ 250	1.00	1.32	1.45	1.50	1.55
400, 450	1.00	1.30	1.41	1.43	1.48

MHS series

Standard Ratings

Note1) Ripple current = mArms/105°C, 120Hz

WV (Vdc)	Cap (uF)	Size ØxL(mm)	Tan δ	Ripple ¹⁾	Code No
200	180	20 x 20	0.15	680	MHS200□181L20□□□
	220	22 x 20	0.15	760	MHS200□221M20□□□
	270	22 x 20	0.15	780	MHS200□271M20□□□
	330	25 x 20	0.15	960	MHS200□331N20□□□
	390	30 x 20	0.15	1,080	MHS200□391O20□□□
	470	30 x 20	0.15	1,120	MHS200□471O20□□□
	560	35 x 20	0.15	1,440	MHS200□561P20□□□
	680	35 x 20	0.15	1,520	MHS200□681P20□□□
250	150	20 x 20	0.15	660	MHS250□151L20□□□
	180	22 x 20	0.15	750	MHS250□181M20□□□
	220	25 x 20	0.15	920	MHS250□221N20□□□
	270	30 x 20	0.15	1,040	MHS250□271O20□□□
	330	30 x 20	0.15	1,080	MHS250□331O20□□□
	390	35 x 20	0.15	1,410	MHS250□391P20□□□
	470	35 x 20	0.15	1,470	MHS250□471P20□□□
400	56	20 x 20	0.15	550	MHS400□560L20□□□
	68	22 x 20	0.15	620	MHS400□680M20□□□
	82	25 x 20	0.15	700	MHS400□820N20□□□
	100	25 x 20	0.15	760	MHS400□101N20□□□
	120	30 x 20	0.15	860	MHS400□121O20□□□
	150	30 x 20	0.15	900	MHS400□151O20□□□
	180	35 x 20	0.15	1,160	MHS400□181P20□□□
	220	35 x 20	0.15	1,210	MHS400□221P20□□□
450	47	20 x 20	0.20	520	MHS450□470L20□□□
	56	22 x 20	0.20	600	MHS450□560M20□□□
	68	25 x 20	0.20	670	MHS450□680N20□□□
	82	25 x 20	0.20	740	MHS450□820N20□□□
	100	30 x 20	0.20	830	MHS450□101O20□□□
	120	30 x 20	0.20	870	MHS450□121O20□□□
	150	35 x 20	0.20	1,170	MHS450□151P20□□□