

MS Ultra-low ESR, High Ripple Current

超低阻抗，高纹波长寿命品



- Low ESR, Higher Capacitance, High ripple current.
低阻抗，大容量，高纹波。
- Load life of 5000 hours at 105°C.
105°C 负荷寿命 5000 小时。
- Available for high density surface mounting.
适用于高密度表面组装。
- Lead free reflow soldering condition at 260°C peak correspondence.
可适用于 260°C 高温无铅回流焊。

Specifications 特性表

Items 项目	Condition 测试条件		Characteristics 主要特性	
Rated Voltage Range 额定工作电压范围(V)	---		4 ~ 16V _{dc}	
Category Temperature Range 使用温度范围(°C)	---		-55 ~ +105°C	
Capacitance Tolerance 静电容量允许偏差(%)	120Hz/20°C		±20% (M), at 20°C, 120Hz	
Dissipation Factor (Tanδ, DF) 损耗角正切值(%)	120Hz/20°C		Please see the attached characteristics list.	
Leakage Current (※1) 漏电流	Rated Voltage applied, after 2 minutes 施加额定电压 2 分钟后		Please see the attached characteristics list.	
Equivalent series resistance (ESR) 等效串联电阻 (※2)	100KHz to 300KHz/20°C		Please see the attached characteristics list.	
Temperature Characteristics (Max. Impedance Ratio) 高低温特性阻抗比	Based the value at 100KHz, +20°C 基于 20°C, 100KHz 值	-55°C	Z/Z _{20°C}	Less than 1.25
		+105°C	Z/Z _{105°C}	Less than 1.25
Endurance 耐久性	105°C, 5000h, Rated Voltage applied 施加额定电压	ΔC/C(※3)		Within ±20% of the initial capacitance value
		DF		150% or less than the initial specified value
		ESR		150% or less than the initial specified value
		LC		less than or equal to the initial specified value
Damp Heat (Steady State) 高温高湿	60°C, 90 to 95%RH, 1000h, No- applied Voltage 不施加电压	ΔC/C		Within ±20% of the initial capacitance value
		DF		150% or less than the initial specified value
		ESR		150% or less than the initial specified value
		LC		less than or equal to the initial specified value
Resistance to Soldering Heat 耐焊接热	Vapor Phase Soldering 回流焊 (230±5°C, 75S)	ΔC/C		Within ±10% of the initial capacitance value(※3)
		DF		130% or less than the initial specified value
		ESR		130% or less than the initial specified value
		LC		less than or equal to the initial specified value

※1 If any doubt arises, measure the leakage current after the voltage treatment of applying DC rated voltage continuously to the capacitor for 120 minutes at 105°C.

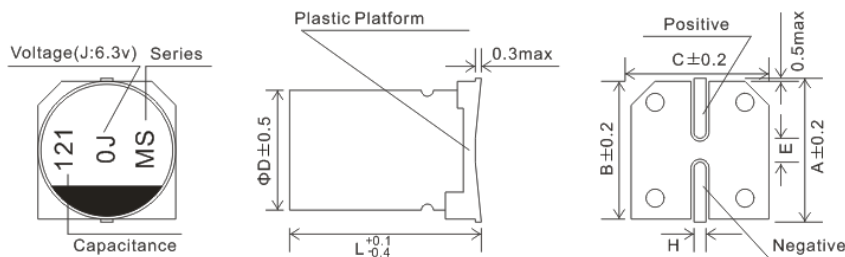
如果有任何疑问，可以在 105°C 温度下对产品施加额定电压 120 分钟后测试。

※2 ESR should be measured at both of the terminal ends closest where the terminals protrude through the plastic platform. ESR 测试时，请使测试点尽可能地靠近引线弯曲处

※3 Initial value: The value before test of examination of resistance to soldering. 初始值：实验投入或焊接前的值

※4 Please refer to page 9 for flow soldering conditions. 请参照第 9 页的回流焊接条件

Drawing(Unit: mm) 外形图



	φD	L	A	B	C	E	H
5x6	5.0	5.9	6.0	5.3	5.3	1.6	0.5~0.8
6.3x6	6.3	5.9	7.3	6.6	6.6	2.1	0.5~0.8
8x7	8.0	6.9	9.0	8.3	8.3	3.2	0.8~1.1

Rated ripple current multipliers(Unit: mm) 额定纹波修正系数

Frequency 频率 (Hz)	120Hz≤f<1KHz	1KHz≤f<10KHz	10KHz≤f<100KH	100KHz≤f<300K
Coefficient 系数	0.05	0.3	0.7	1.00

Note: All design and specifications are for reference only and is subject to change without prior notice. If any doubt about safety for your application, Please contact us immediately for technical assistance before purchase.

注：以上所提供的设计及特性参数仅供参考，任何修改不作预先通知，如有使用上任何疑问，请在采购前与我们联系，以便提供技术上的协助。

MS Series

■ Standard ratings 标准品一览表

Rated voltage 额定电压 (V)(code)	Surge Voltage 浪涌电压 (V)	Rated Capacitance 额定容量 (μ F)	Case Size 产品尺寸 Φ D x L(mm)	DF 损失角正切值 (DF,max)	Leakage Current 漏电流 (mA,max)	ESR(m Ω) (at 100kHz 20 $^{\circ}$ C)	Rated Ripple 纹波电流 (mA,rms,at 105 $^{\circ}$ C)
4 (0G)	4.6	150	5x6	0.12	120	25	2200
		330	6.3x6	0.12	264	20	2800
		330	8x7	0.12	264	22	3200
		560	8x7	0.12	448	18	3600
6.3 (0J)	7.2	47	5x6	0.12	100	35	1600
		100	5x6	0.12	126	25	2400
		100	6.3x6	0.12	126	22	2800
		120	6.3x6	0.12	151	22	2800
10 (1A)	11.5	220	6.3x6	0.12	277	20	2800
		220	8x7	0.12	277	22	3200
		390	8x7	0.12	491	22	3200
		33	5x6	0.12	100	40	1300
		56	6.3x6	0.12	112	27	2300
		68	5x6	0.12	136	30	2100
		120	6.3x6	0.12	240	27	2300
16 (1C)	18.4	150	8x7	0.12	300	30	2600
		270	8x7	0.12	540	22	3200
		22	5x6	0.12	100	45	1100
		39	5x6	0.12	125	35	2000
		39	6.3x6	0.12	125	30	2200
		68	6.3x6	0.12	218	30	2200
		82	8x7	0.12	262	28	2800
	120	8x7	0.12	384	28	2800	

Note1: Case size Φ D x L(mm), ripple current (mA, rms) at 105 $^{\circ}$ C, 100KHz. 尺寸 Φ D x L(mm), 纹波电流於 105 $^{\circ}$ C, 100KHz

Note2: Produce custom product too, which are not found in these tables. 客户定制品不在标准品一览表内