

Comparison Data for Ceramic ESD

LXES15AAA1-017

-100

-117

-133

-153

Sep. 1st 2016

Murata Manufacturing Co., Ltd.



Murata recommend to use **LXES15AAA1-153 or LXES15AAA1-133**
instead of **LXES15AAA1-117, LXES15AAA1-100 and LXES15AAA1-017**.
Because LXES-117/-100/-017 will be in EOL in 2015F~2016F.

-- EOL Schedule --

2015/Spring Promotion stop for new model
2016/September Start to apply an EOL to customer.
2017/June End EOL

LXES-153 is new one and best ESD performance in this series, hence we recommend to use LXES-153 strongly.
It can use for all signal line like USB data line, HDMI line, SIM slot, Audio line (Ear phone, Microphone, Receiver) and so on.
However, if they use it for DC power supply line like 5V USB power, we recommend to use LXES-133.
It's depend on the protection line whether it's signal line or DC power line.
Please refer the comparison data following next page.

LXES-117/-100/-017 and LXES-153/ -133 has the different body color.
(Changed the materials due to the green product: Reducing the environmentally hazardous substances)
Size and land patter are exactly the same. That's why, it's no needed the changing your layout and land pattern.

Please evaluate new one instead of old EOL parts. Thank you for your collaboration.

Electrical Performance

◆ Rating

item	Symbol mark	Part number				
		LXES15AAA1-017 (075)	LXES15AAA1-100 (112)	LXES15AAA1-117	LXES15AAA1-133	LXES15AAA1-153
Rating Voltage	V _{DC}	15V	15V	15V	15V	DC:4V AC:±20V
Rating Temperature	T _{OP}	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C
Storage Temperature	T _{STO}	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C
ESD clamp (V _{peak})		380~430V	300~350V	280~330V	300~350V	200~250V
Notes		EOL soon	EOL soon	EOL soon	For DC Power supply line	For signal line USB data line SIM, Audio line

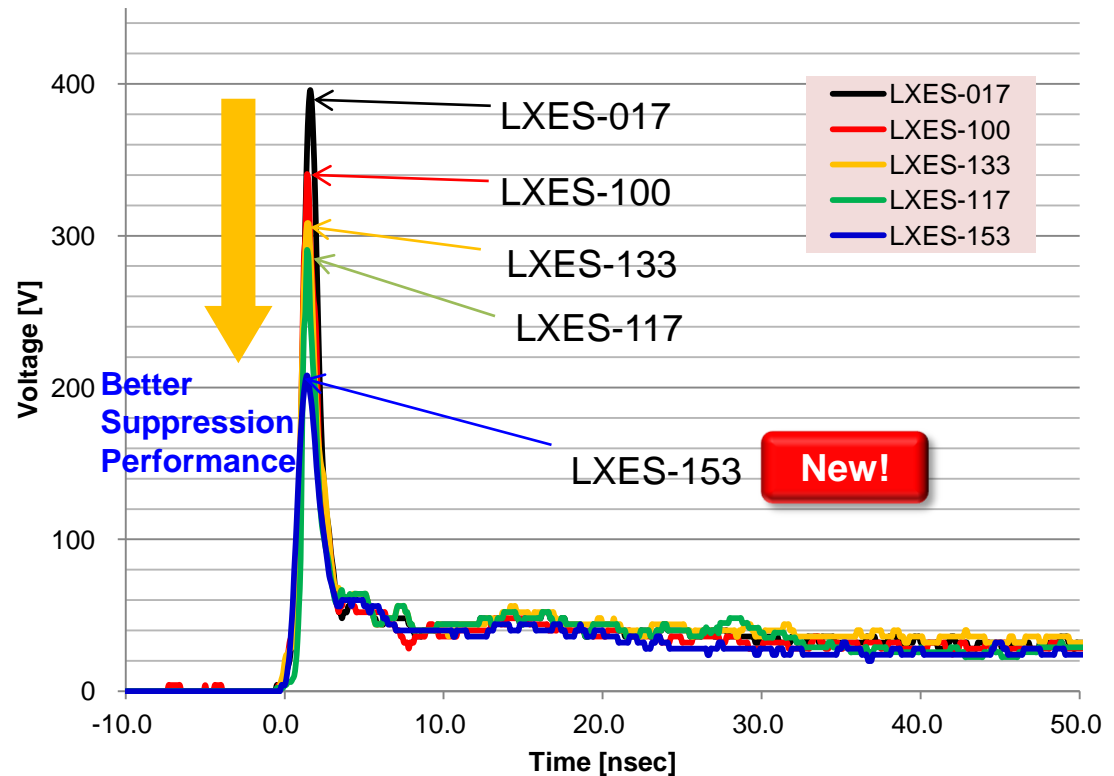
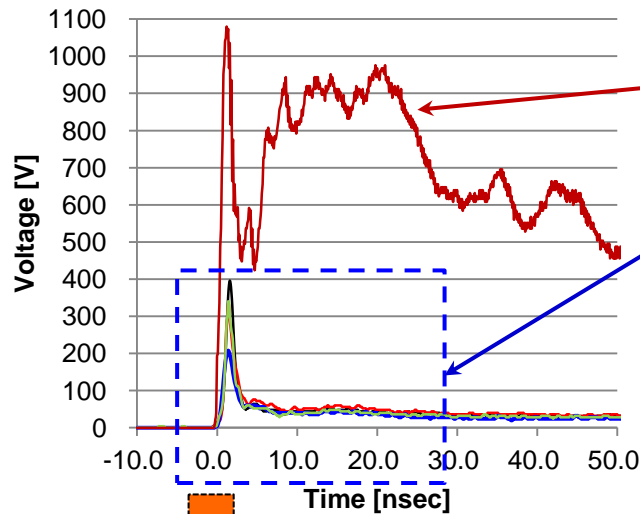
LXES15AAA1-153 has better performance for ESD protection.

◆ Electrical character(Ta=25°C)

item	Symbol mark	Conditions	Part number		unit
			LXES15AAA1-017 LXES15AAA1-100 LXES15AAA1-117	LXES15AAA1-133 LXES15AAA1-153	
Capacitance	C	1MHz, V _{bias} =0V	0.05 typ.	0.05 typ.	pF
ESD IEC61000-4-2(Air)	-	10MHz	±15	±15	kV
ESD IEC61000-4-2(Contact)	-	V _{DC} =0V-15V,1MHz	±15	±15	kV

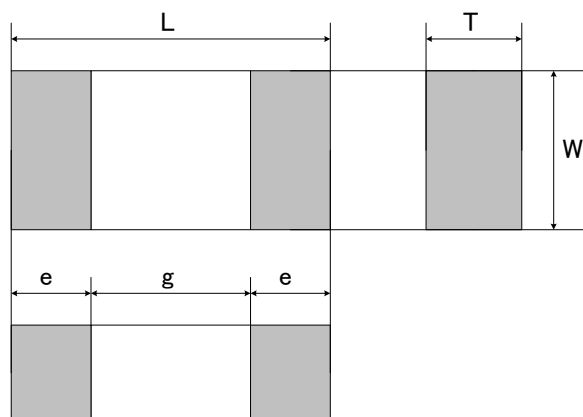
ESD Waveform Comparison

IEC61000-4-2 contact 8kV



SIZE

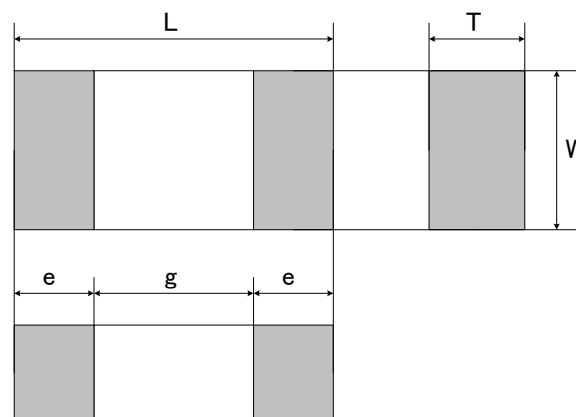
LXES15AAA1-017
LXES15AAA1-100
LXES15AAA1-117



(In mm)

Mark	Dimensions
L	1.00 ± 0.05
W	0.50 ± 0.05
T	0.33 max
e	0.20 ± 0.10
g	0.40 min

LXES15AAA1-133
LXES15AAA1-153



(In mm)

Mark	Dimensions
L	1.00 ± 0.05
W	0.50 ± 0.05
T	0.33 max
e	0.20 ± 0.10
g	0.40 min

Size of LXES15AAA1-017/100/117/133/153 are exactly the same.

Outlook Appearance



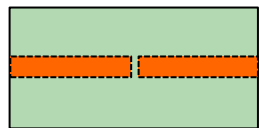
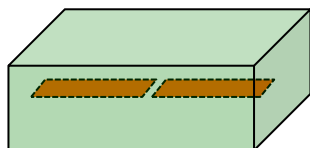
【Body color】

LXES15AAA1-017 : Green
LXES15AAA1-100 : Green
LXES15AAA1-117 : Green
LXES15AAA1-133 : White (for DC power line)
LXES15AAA1-153 : White (for Signal line)

1005 ceramic ESD evolution

EOL soon

LXES15AAA1-017

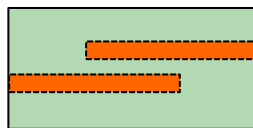
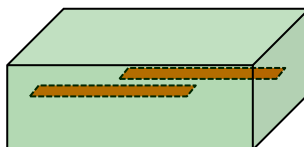


EOL soon

LXES15AAA1-100
LXES15AAA1-117

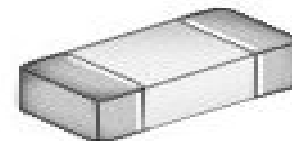


Overlapping gap structure

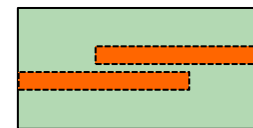
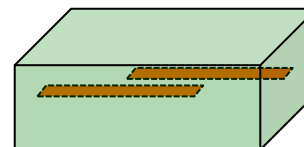


New

LXES15AAA1-133
LXES15AAA1-153



Narrower gap
+ new material



ESD performance improvement

ESD performance improvement

Same size, same land pattern

***Thank you very much
for your attention!***

