

## I Super Low Capacitance

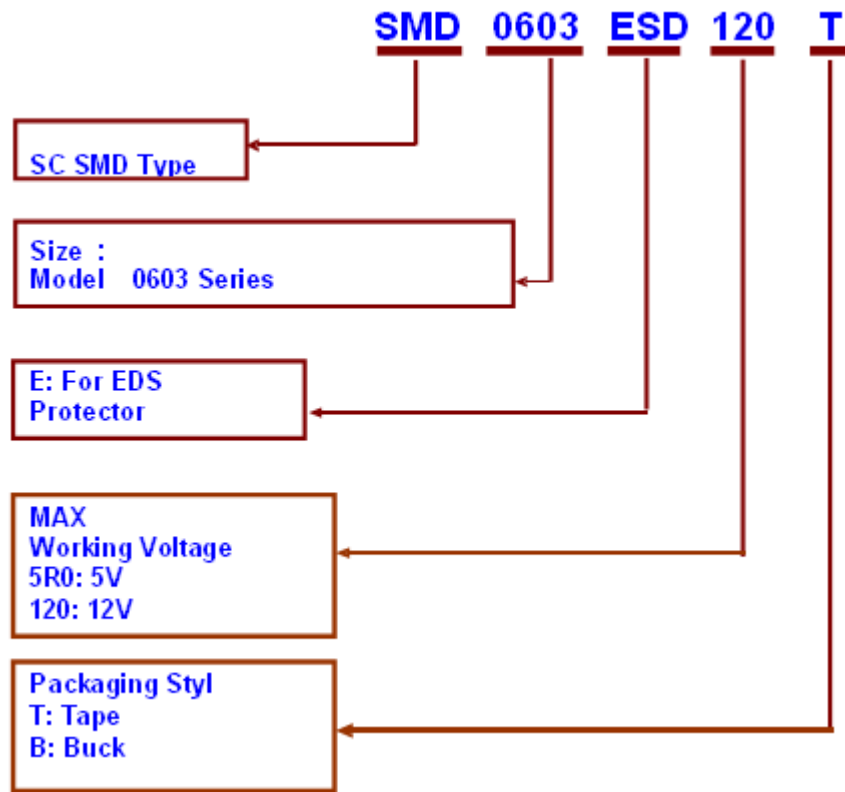
### Features

1. RoHS compliant and lead-free
2. EIA size 0402, 0603
3. Ultra-low capacitance (<0.2pF) and low leakage current (<0.05uA)
4. Fast response time ( <1ns)
5. Single-line, bi-directional device
6. Rate for ESD protection and pass IEC 61000-4-2 level 4 test



### Recommended Applications

1. High-Speed Data Lines (HDMI, Serial ATA, USB, IEEE1394)
2. Antenna Circuit (Cellular phone, GPS...)
3. Digital Cameras
4. Set-Top Boxes
5. Printer Ports



Part Number	Max. Operating Voltage		Typical Trigger Voltage	Max. Clamping Voltage	Typical Capacitance	Max. Leakage Current @VDC	ESD TEST
	Vac	Vdc					
	VV	Vc(V)	CN(pF)	IL			
				8/20µs	@1MHZ	(nA)	IEC61000-4-2
SMD0402ESD120T	10	12	300	35	< 0.15	< 10	ESD Contact:8kv ESD Air: 15kv
SMD0402ESD140T	12	14	500	50	<0.15	< 10	
SMD0603ESD6R0T	5	6	350	35	<0.15	< 10	
SMD0603ESD240T	18	24	125	35	<0.15	< 10	
SMD0603ESD240T1	18	24	500	50	<0.15	< 10	
SMD0603ESD300T	25	30	300	35	<0.15	< 10	

## II Normal Capacitance

### Features

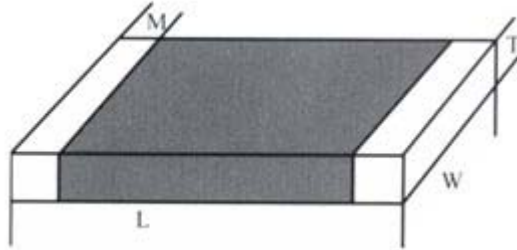
1. RoHS compliant
2. Low clamping voltage
3. EIA size 0402, 0603, 0805
4. Operating voltage: 5.5 ~ 30 Vdc
5. Bidirectional and symmetrical V/I characteristics
6. Multilayer ceramic construction technology
7. Rate for ESD protection
8. Variable capacitance
9. -40 ~ +125°C operating temperature range

### Recommended Applications

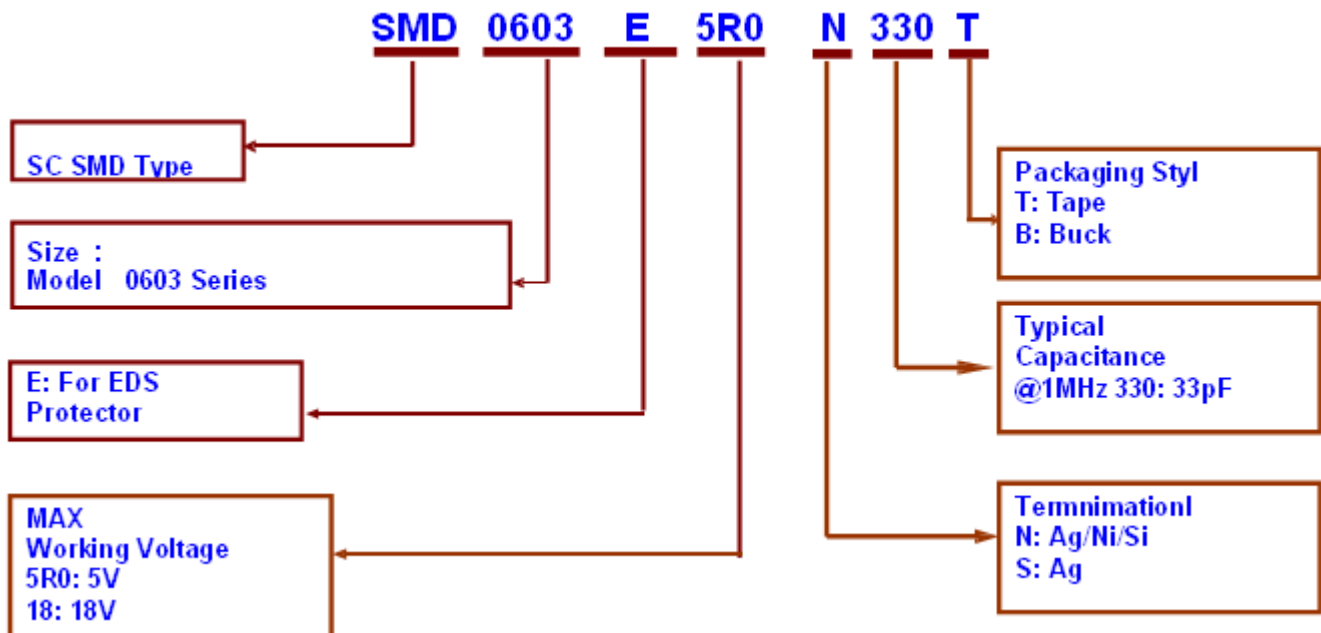
1. Cellular phones
2. I/O port for mother board
3. LCD module
4. Data line (USB, RS232)
5. PDA
6. Bluetooth headset



### Outlook and Dimension ( Unit: mm)



Type	L	W	T	MB
0402	1.0 ± 0.10	0.5 ± 0.10	0.5 ± 0.20	0.30+0.2/-0.1
0603	1.6 ± 0.15	0.8 ± 0.10	0.8 ± 0.20	0.30+0.2/-0.1



Part Number	Max. Operating Voltage		Varistor Voltage (@ 1mA DC)		Max. Clamping Voltage	Typical Capacitance		ESD TEST IEC61000-4-2
	Vac	Vdc	V1mA(V)			Vc(V)	C <sub>N</sub> (pF)	
			Vb(V)		8/20µs 1A	@1MHZ	C <sub>P</sub> (pF)	
SMD0402E180N1R5T	14	18	46	60	110	1.5	±2pF	ESD Contact:8kv ESD Air: 15kv
SMD0402E180N3R0T	14	18	22	34	58	3	±2pF	
SMD0402E180N5R0T	14	18	22	34	58	5	±2pF	
SMD0402E180N100T	14	18	22	34	58	10	±30%	
SMD0402E180N150T	14	18	22	34	58	15	±30%	
SMD0402E260N5R0T	20	26	46	60	110	5	±2pF	
SMD0402E420N3R0T	30	42	46	75	135	3	±2pF	
SMD0603E5R0N5R0T	4	5	22	34	58	5	±2pF	
SMD0603E9R0N3R0T	6	9	36	60	110	3	±2pF	
SMD0603E120N5R0T	9	12	30	40	70	5	±2pF	
SMD0603E180N3R0T	14	18	36	60	110	3	±2pF	
SMD0603E180N7R0T	14	18	36	60	110	7	±2pF	
SMD0603E180N120T	14	18	22	34	58	12	±30%	
SMD0603E180N150T	14	18	22	34	58	15	±30%	
SMD0603E180N220T	14	18	22	34	58	22	±30%	