

Anti-Electro Static Discharge Thick Film Chip Resistors

Performance Specification

Temperature Coefficient	1Ω ~ 10Ω ±200PPM/°C 10.1Ω ~ 10MΩ ±100PPM/°C	Humidity (Steady State)	±5%: ±(3.0% + 0.1Ω)Max ±1%: ±(0.5% + 0.1Ω)Max
Short Time Overload	±5%: ±(2.0% + 0.1Ω)Max ±1%: ±(1.0% + 0.1Ω)Max	ESD	±(1.0% + 0.05Ω)Max
Temperature Cycling	±5%: ±(1.0% + 0.05Ω)Max ±1%: ±(0.5% + 0.05Ω)Max	Load Life	±5%: ±(3.0% + 0.1Ω)Max ±1%: ±(1.0% + 0.1Ω)Max
Terminal Bending	±(1.0% + 0.05Ω)Max	Solderability	Min. 95% coverage.
Dielectric Withstanding Voltage	No evidence of flashover, mechanical damage, arcing or insulation breakdown.	Soldering Heat	±(1.0% + 0.05Ω)Max

Ordering Procedure: Ex.: ES06, 1/4W-S, +/-5%, 1.2Ω T/R-5000

E S 0 6 S 4 J 0 1 2 J T 5 E

Resistor Size:

- ES02 = 0402
- ES03 = 0603
- ES05 = 0805
- ES06 = 1206
- ES07 = 1210

Wattage:

- WG=1/16W, WA=1/10W, W8=1/8W,
- W3=1/3W, SA=1/10W-S, S8=1/8W-S,
- S4=1/4W-S, S2=1/2W-S

Tolerance:

- F = ±1%
- J = ±5%

Resistance Value:

- E-24 series:
1st digit is "0"
2nd & 3rd digits are significant figures of the resistance
4th indicates the number of zeros
- E-96 series:
1st to 3rd digits are significant figures of the resistance
4th digit indicates the number of zeros.
"J" ~ 0.1, "K" ~ 0.01, "L" ~ 0.001
Ex. 012J ~ 1Ω2, 226K ~ 2Ω26

Packing Type:

T = Tape/Reel

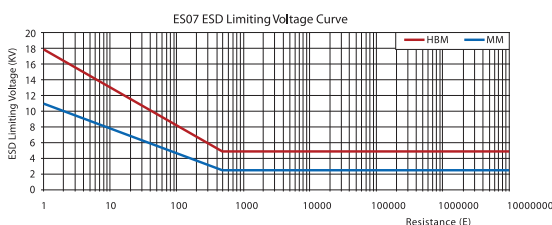
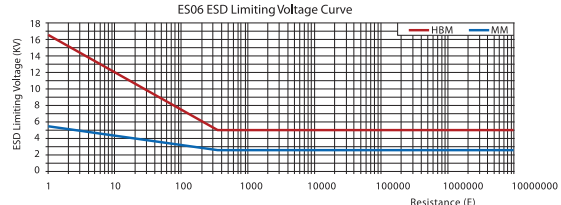
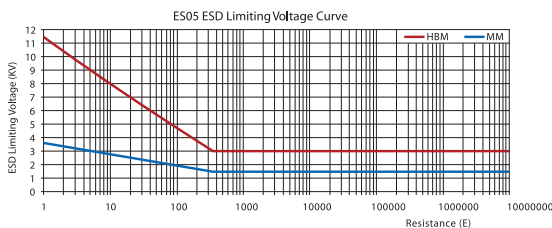
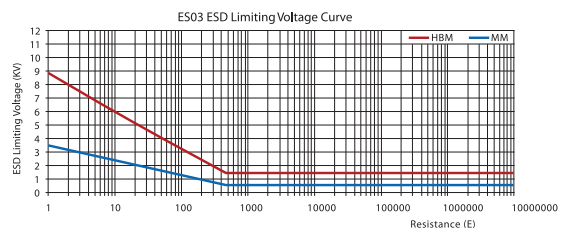
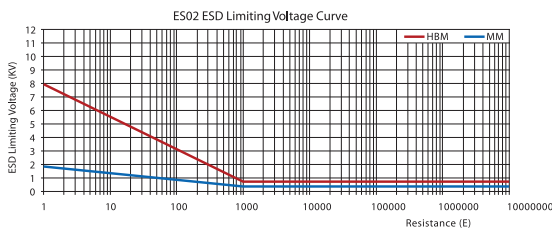
Packing Qty:

5 = 5,000 pcs.

Special Feature:

E = Lead (Pb) Free Plating Type/
RoHS compliant

ESD Limiting Voltage Curve



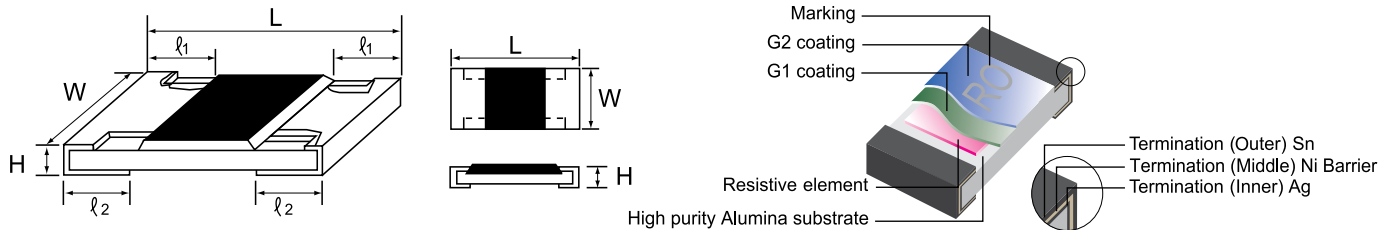
Note: HBM:100PF 1K5 1Cycle, MM:200PF 0E 1Cycle

Anti-Electro Static Discharge Thick Film Chip Resistors

Features

- Anti-Electro Static Discharge
- High Voltage
- Suitable for reflow & wave soldering.
- Application Medical Devices, Industrial Controls, AV adapter, Flash lamp of camera, Automotive Industry, Outdoor Equipments

Dimension



Type	Max Working Voltage	Max Overload Voltage	Dielectric Withstanding Voltage	Operating Temperature
ES02	50V	100V	100V	-55 ~ +155°C
ES03	200V	400V	300V	
ES05	400V	800V	500V	
ES06	500V	1,000V	500V	
ES07	800V	1,500V	500V	

Type	Power (70°C)	L (mm)	W (mm)	H (mm)	l1 (mm)	l2 (mm)	Resistance Range 1%(E96), 5%(E24)
ES02	1/16W	1.00±0.10	0.50±0.05	0.35±0.05	0.20±0.10	0.25±0.10	1Ω ~ 10MΩ
ES03	1/16W 1/10W-S	1.60±0.10	0.80±0.10	0.45±0.10	0.30±0.20	0.30±0.20	
ES05	1/10W 1/8W-S	2.00±0.15	1.25 ^{+0.15} _{-0.10}	0.55±0.10	0.40±0.20	0.40±0.20	
ES06	1/8W 1/4W-S	3.10±0.15	1.55 ^{+0.15} _{-0.10}	0.55±0.10	0.45±0.20	0.45±0.20	
ES07	1/3W 1/2W-S	3.10±0.10	2.60±0.20	0.55±0.10	0.50±0.25	0.50±0.20	

Derating Curve

