

# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

Product data sheet

**1.1 Technology Data**

	Symbol		Value	Unit
Maximum allowable continuous AC voltage at 50-60Hz	$V_{RMS}$		18	V
Maximum allowable continuous DC voltage	$V_{DC}$		5.5	V
Varistor voltage measured * <sub>1</sub>	$V_V$		100~150	V
Typical capacitance value measured at 1MHz	C		3	pF
Typical capacitance value tolerance			+80-20	%
Maximum ESD allowable clamping Voltage* <sub>2</sub>	$V_{CLAMP}$	<	240	V
Leakage current at $V_{DC}$ * <sub>3</sub> (At initial state)	$I_{LDC}$	<	0.1	uA
Leakage current at $V_{DC}$ * <sub>3</sub> (After ESD Test)	$I_{LDCA}$	<	2	uA

**1.2 Reference Data**

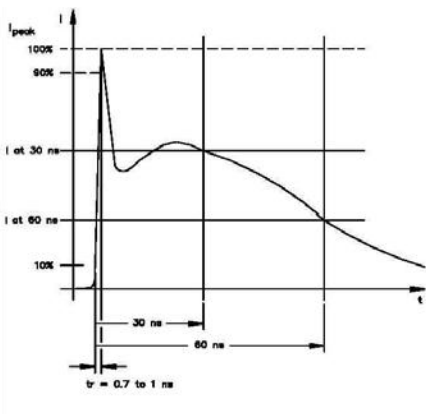
Response time	$T_{rise}$	<	0.5	ns
Operation ambient temperature			-50 ~ +85	°C
Storage temperature			-50 ~ +125	°C
ESD testing	IEC61000-4-2		Level 4	

**1.3 Other Data**

Body			ZnO	
End termination			Ag/Ni/Sn	
Packaging			Reel	
Complies with Standard			IEC61000-4-2	
Complies with RoHs Standard			Yes	
Lead Content		<	1000	ppm
Marking			None	

Notes :

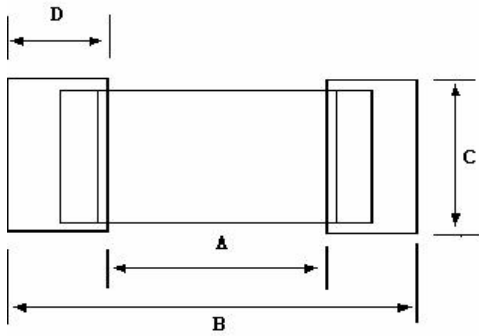
- \* 1 The varistor voltage was measured at 1 mA current
- \* 2 The Clamping voltage was measured at 8\*20 us standard current.
- \* 3 The Leakage current was measured at working voltage.
- \* 4 The Energy only for customer reference.
- \* 5 The components shall be employed within 1 year, in the nitrogen condition.



SEVERITY LEVEL	AIRDIRCHARGE	DIRECT DISCHARGE
1	2 KV	2 KV
2	4 KV	4 KV
3	8 KV	6 KV
4	15 KV	8 KV

IEC 61000-4-2 Compliant ESD Current Pulse Waveform

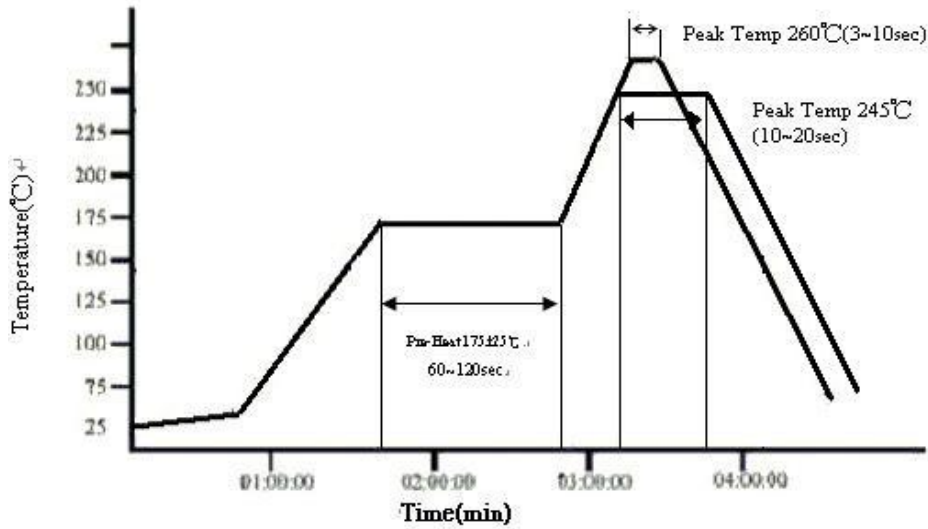
**PACKAGE MECHANICAL DATA**



0603

Dimension	( Unit : mm )	
	Min.	Max.
A	0.9	1.2
B	2.7	3.2
C	0.7	1.0
D	0.9	1.2

The IR reflow and temperature of Soldering for Pb Free



☆ IR reflow Pb Free Process suggestion profile

- (1) The solder recommend is Sn96.5/Ag 3.5 of 120 to 150  $\mu$ m
- (2) Ramp-up rate (217°C to Peak) + 3°C/second max
- (3) Temp. maintain at 175 +/-25°C 180 seconds max
- (4) Temp. maintain above 217 °C 60-150 seconds

**REEL SPECIFICATION**

P/N	PKG	QTY
ESL160503	0603	4000

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