



DESCRIPTION

The PESD0603-240 is available in 0603 package.

APPLICATION

- HDMI 1.3 Interfaces
- LCD & Plasma TV
- Cellular Pones
- Antennas
- Portable Video Players
- Portable Devices (PDA, DSC, Bluetooth)

FEATURE

- 0603inch/ 1608mm foot print
- Ideal ESD protection for high frequency, low voltage applications.
- Exceeds testing requirements outlined in IEC 61000-4-2
- Very low leakage current
- Fast response time
- Bi-directional

PIN DESCRIPTION



ORDERING INFORMATION

Package Type	Part Number
0603	PESD0603-240
Note	SPQ: 4,000 or 5,000pcs/Reel
AiT provides all RoHS Compliant Products	

ABSOLUTE MAXIMUM RATINGS T_A = 25°C, unless otherwise noted.

V _{ESD} , ESD per IEC61000-4-2	(Air)	8kW
	(Contact)	15kW
T _L , Lead Soldering Temperature		260°C
T _O , Operating Temperature		-55 ~+125°C
T _{stg} ,Storage Temperature range		-40~+125°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

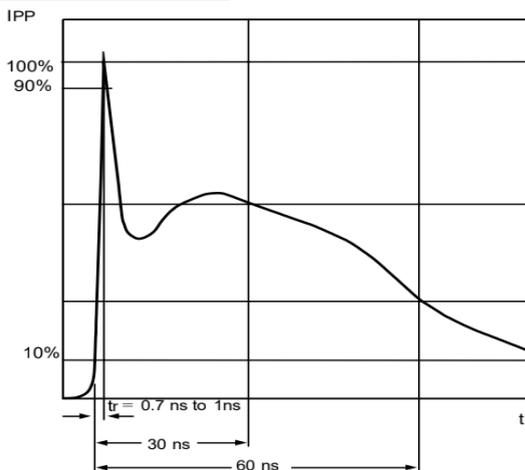


ELECTRICAL CHARACTERISTICS

T_A = 25°C, unless otherwise noted.

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Continuous Operating Voltage	V _{DC}		-	-	24	V
Trigger Voltage	V _T	IEC61000-4-2 8KV contact discharge	-	140	-	V
Leakage Current	I _L	VDC=24V, T=25 °C	-	-	050	nA
Clamping Voltage	V _C	IEC61000-4-2 8KV contact discharge	-	65	100	V
Capacitance	C _P	Measured at 10MHz	-	0.5	-	pF
ESD Pulse Withstand	Pulses	IEC61000-4-2 8KV contact discharge	1000	-	-	

ESD Wave From

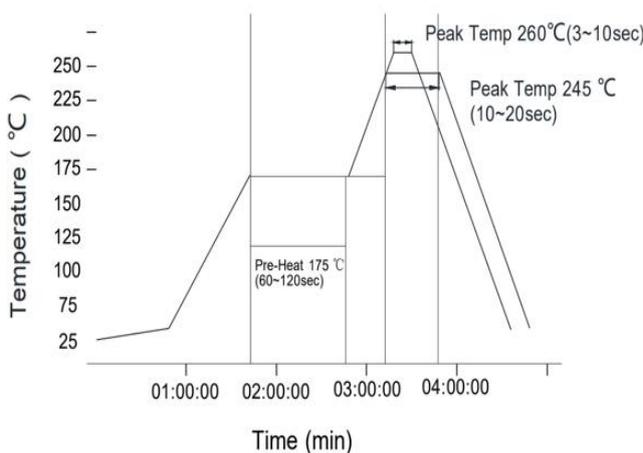


Electrical Characteristics

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

IEC61000-4-2 compliant ESD current pulse waveform

Soldering Parameters



IR reflow Pb free process suggestion profile

- (1) The solder recommend is Sn96.5/Ag3.5 and thickness recommend as shown in table 5.3
- (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



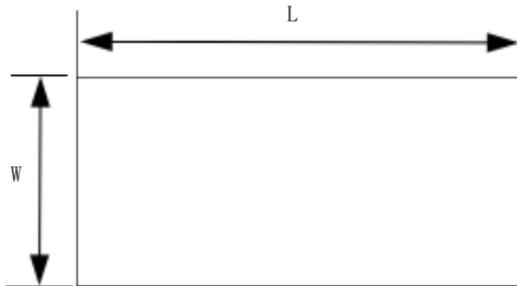
Environment Reliability Test

Characteristic	Test Method and Description			
High Temperature Storage	The specimen shall be subjected to $125\pm 2^{\circ}\text{C}$ for 1000 ± 2 hours without load and then stored at room temperature and normal humidity for one or two hours. The change of varistor voltage shall be within 10%.			
Temperature Cycle	The temperature cycle of specified temperature shall be repeated five times and then stored at room temperature and normal humidity for one or two hours. The change of varistor voltage shall be within 10% and mechanical damage shall be examined.	Step	Temperature	Period
		1	$-40\pm 3^{\circ}\text{C}$	$30\pm 3\text{min}$
		2	room temperature	1 hour
		3	$125\pm 3^{\circ}\text{C}$	$30\pm 3\text{min}$
		4	room temperature	1 hour
High Temperature Load	After being continuously applied the maximum allowable voltage at $85\pm 2^{\circ}\text{C}$ for 1000 ± 2 hours, the specimen shall be stored at room temperature and normal humidity for one or two hours. The change of varistor voltage shall be within 10%.			
Damp Heat Load Humidity Load	The specimen should be subjected to $40\pm 2^{\circ}\text{C}$ and 90-95% RH, the maximum allowable voltage applied for 1000 ± 2 hours and then stored at room temperature and normal humidity for one or two hours. The change of varistor voltage shall be within 10%.			
Low Temperature Storage	The specimen should be subjected to $-40\pm 2^{\circ}\text{C}$ for 1000 ± 2 hours without load and then stored at room temperature and normal humidity for one or two hours. The change of varistor voltage shall be within 10%.			



PACKAGE INFORMATION

Dimension in 0603 Package (Unit: mm)



Bottom view



Side view

SYMBOL	MIN	MAX
L	1.45	1.75
W	0.70	1.00
P	0.20	0.40
H	-	0.90



IMPORTANT NOTICE

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