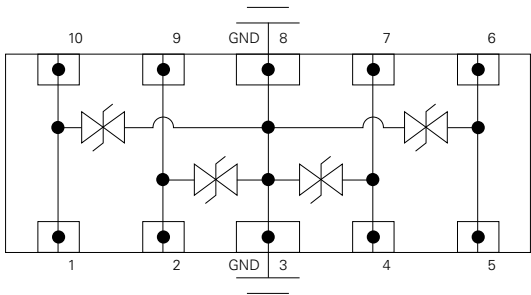
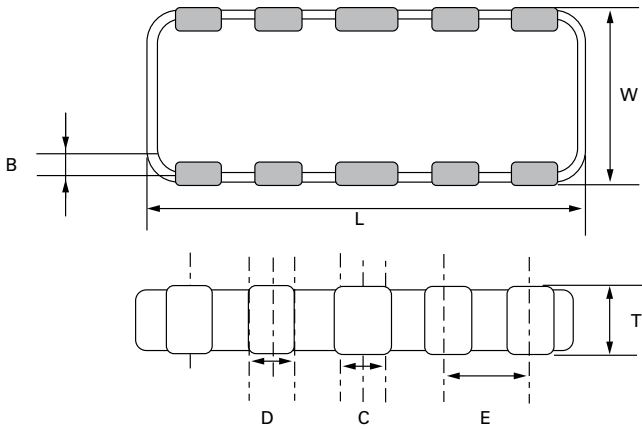


**Equivalent circuit**

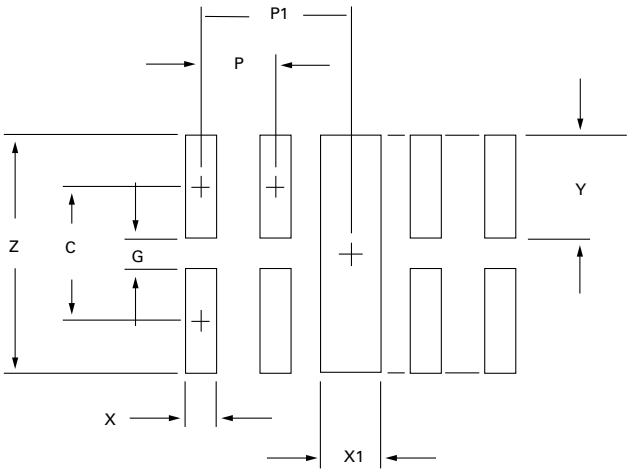


**Dimensions—mm**



L	W	T	B	C	D	E
2.5 ±0.1	1.0 ±0.1	0.5 ±0.1	0.2 ±0.1	0.3 ±0.05	0.2 ±0.05	0.5 ±0.05

**Recommended pad layout**



Y	G	Z	X	X1	P	P1	C
0.6	0.2	1.4	0.2	0.3	0.5	1.0	0.8

## General specifications

Operating temperature: - 55 °C to +125 °C

Storage temperature (component): - 55 °C to +125 °C

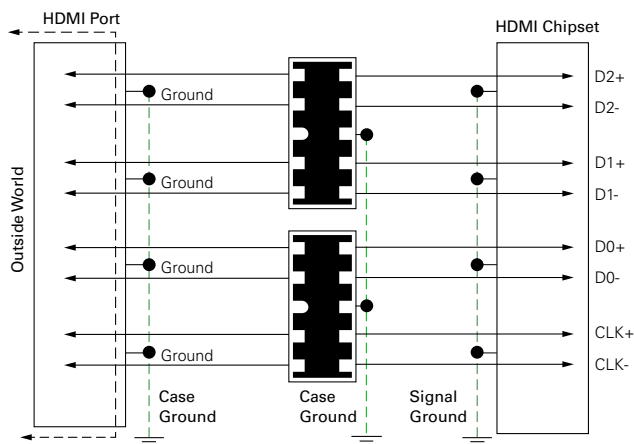
High temperature load voltage: +125 °C for 1000 hours at rated voltage

Thermal shock: 100 cycles, -55 °C to +125 °C, 30 minuets dwell time

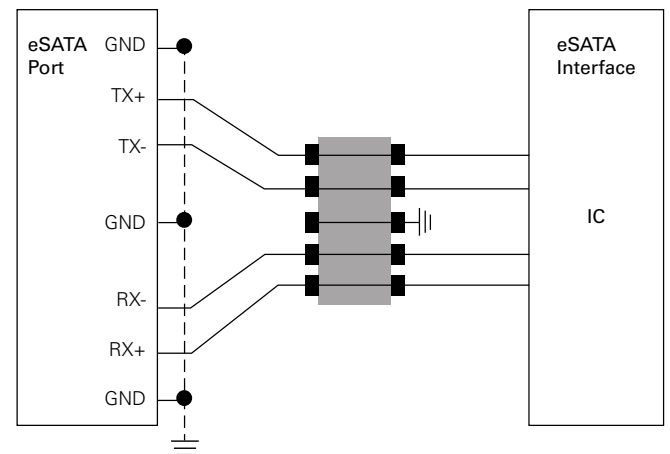
Resistance to solder heat: +260 °C  $\pm$ 5 °C 10 seconds

Moisture sensitivity level (MSL): 1

## HDMI layout

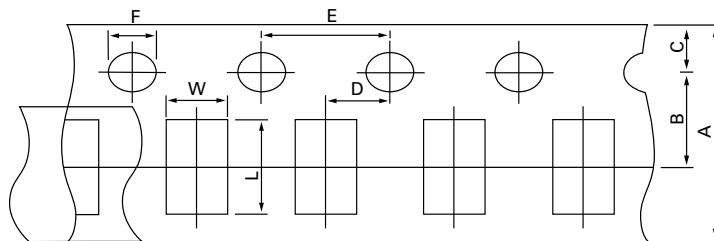


## eSATA layout



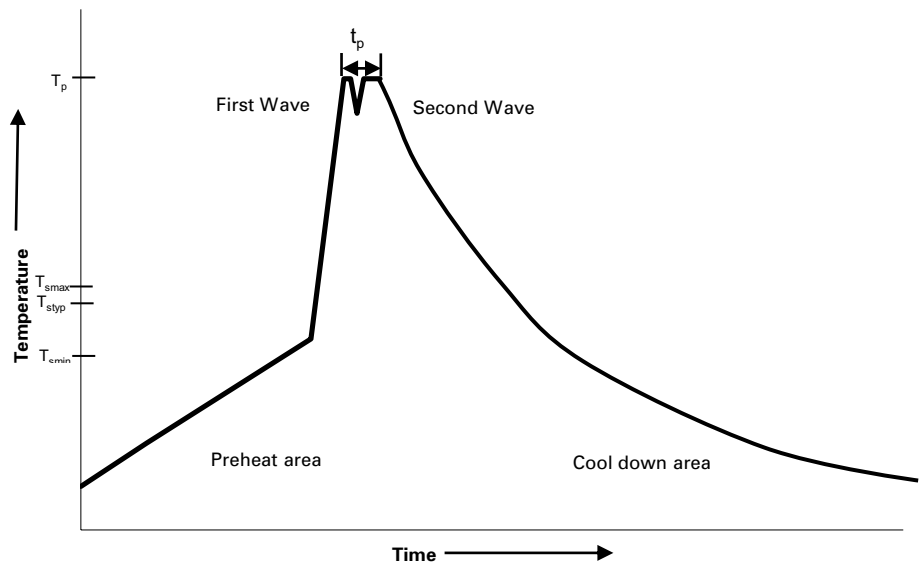
## Packaging information- mm

Supplied in tape and reel packaging, 5000 parts per seven inch (178 mm) reel per EIA Standard 481-1



A	B	C	D	E	F	L	W
8.0 $\pm$ 0.30	3.50 $\pm$ 0.05	1.75 $\pm$ 0.10	2.00 $\pm$ 0.05	4.00 $\pm$ 0.10	1.5 $\pm$ 0.10	2.9 $\pm$ 0.20	1.40 $\pm$ 0.20

Wave solder profile



Reference EN 61760-1:2006

Profile feature	Standard SnPb solder	Lead (Pb) free solder
Preheat		
• Temperature min. ( $T_{smin}$ )	100 °C	100 °C
• Temperature typ. ( $T_{styp}$ )	120 °C	120 °C
• Temperature max. ( $T_{smax}$ )	130 °C	130 °C
• Time ( $T_{smin}$ to $T_{smax}$ ) ( $t_s$ )	70 seconds	70 seconds
$\Delta$ preheat to max Temperature	150 °C max.	150 °C max.
Peak temperature ( $T_p$ )*	235 °C – 260 °C	250 °C – 260 °C
Time at peak temperature ( $t_p$ )	10 seconds max 5 seconds max each wave	10 seconds max 5 seconds max each wave
Ramp-down rate	~ 2 K/s min ~3.5 K/s typ ~5 K/s max	~ 2 K/s min ~3.5 K/s typ ~5 K/s max
Time 25 °C to 25 °C	4 minutes	4 minutes

Manual solder

+280 °C (3 seconds maximum by soldering iron), generally manual/hand soldering is not recommended.

## Solder reflow profile

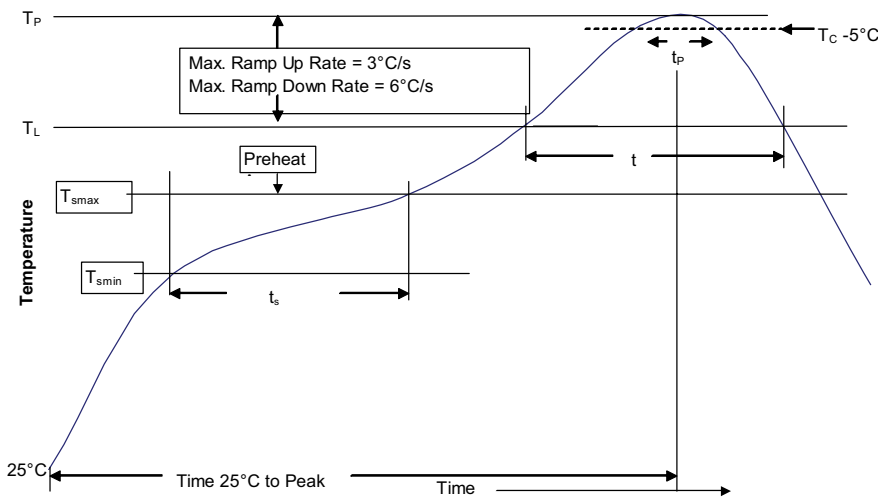


Table 1 - Standard SnPb solder ( $T_C$ )

Package thickness	Volume mm <sup>3</sup> <350	Volume mm <sup>3</sup> ≥350
<2.5 mm)	235 °C	220 °C
≥2.5 mm	220 °C	220 °C

Table 2 - Lead (Pb) free solder ( $T_C$ )

Package thickness	Volume mm <sup>3</sup> <350	Volume mm <sup>3</sup> 350 - 2000	Volume mm <sup>3</sup> >2000
<1.6 mm	260 °C	260 °C	260 °C
1.6 – 2.5 mm	260 °C	250 °C	245 °C
>2.5 mm	250 °C	245 °C	245 °C

## Reference J-STD-020

Profile feature	Standard SnPb solder	Lead (Pb) free solder
Preheat and soak		
• Temperature min. ( $T_{smin}$ )	100 °C	150 °C
• Temperature max. ( $T_{smax}$ )	150 °C	200 °C
• Time ( $T_{smin}$ to $T_{smax}$ ) ( $t_s$ )	60-120 seconds	60-120 seconds
Ramp up rate $T_L$ to $T_p$	3 °C/ second max.	3 °C/ second max.
Liquidous temperature ( $T_L$ )	183 °C	217 °C
Time ( $t_L$ ) maintained above $T_L$	60-150 seconds	60-150 seconds
Peak package body temperature ( $T_p$ )*	Table 1	Table 2
Time ( $t_p$ )* within 5 °C of the specified classification temperature ( $T_C$ )	20 seconds*	30 seconds*
Ramp-down rate ( $T_p$ to $T_L$ )	6 °C/ second max.	6 °C/ second max.
Time 25 °C to peak temperature	6 minutes max.	8 minutes max.

\* Tolerance for peak profile temperature ( $T_p$ ) is defined as a supplier minimum and a user maximum.

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