



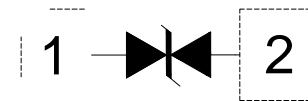
FEATURES:

- ✧ Small body outline dimensions : 0.6mm×0.3mm
- ✧ Low clamping voltage
- ✧ Low operating voltage: 1.5V
- ✧ Low capacitance
- ✧ RoHS compliant

DFN0603-2L(Bottom view)

MAIN APPLICATIONS

- ✧ Desktops, servers and notebooks
- ✧ USB3.x, USB type-C
- ✧ Display ports
- ✧ Thunderbolt



PROTECTION SOLUTION TO MEET

- ✧ IEC61000-4-2 (ESD) ±20kV (air), ±20kV (contact)
- ✧ IEC61000-4-4 (EFT) 40A (5/50ns)
- ✧ IEC61000-4-5(Lightning) 9A (8/20us)

MEMBER μs I

| | | | |
|--------------------------------------|------------------|---------------|----|
| | PP | 9 | A |
| ESD per IEC 61000-4-2 (Air) | V _{ESD} | +/-20 | kV |
| ESD per IEC 61000-4-2 (Contact) | | +/-20 | |
| Lead soldering temperature | T _L | 260 (10 sec.) | |
| Operating junction temperature range | T _J | -55 to +125 | |
| Storage temperature range | T _{STG} | -55 to +150 | |

FIG.3: Pulse derating curve

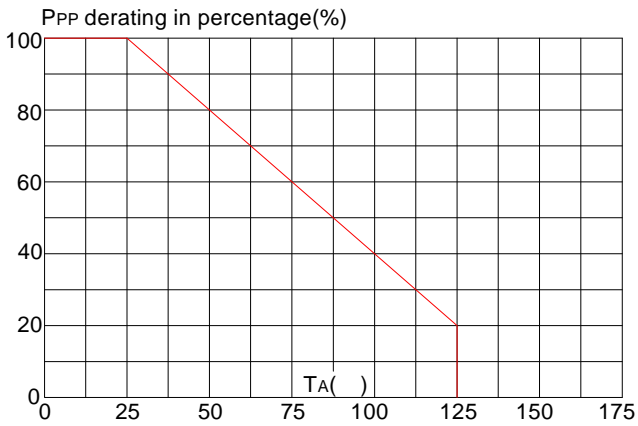


FIG.4: ESD clamping (20kV contact)

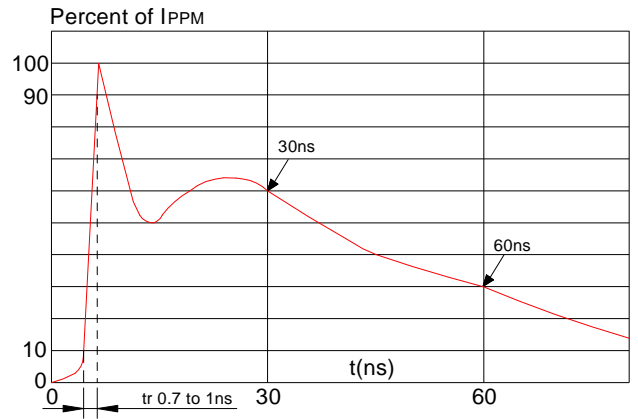


FIG.5: TLP testing of I/O to I/O

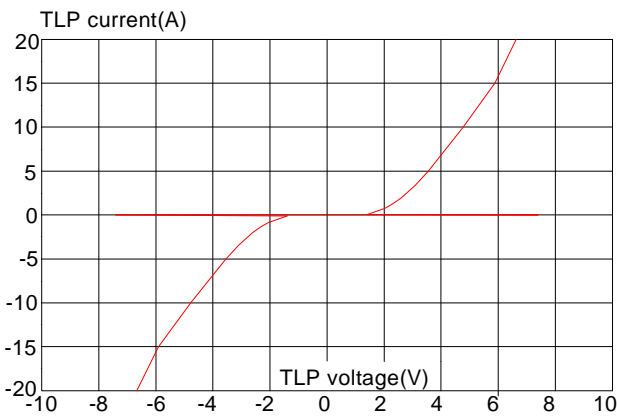


FIG.6: Insertion Loss S21 of I/O to I/O

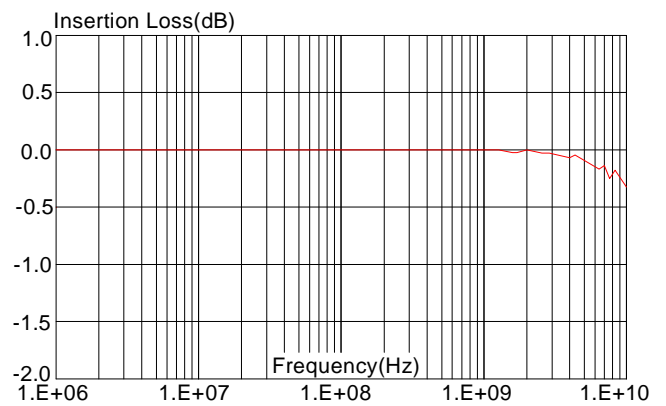


FIG.7: Capacitance vs. voltage of I/O to I/O

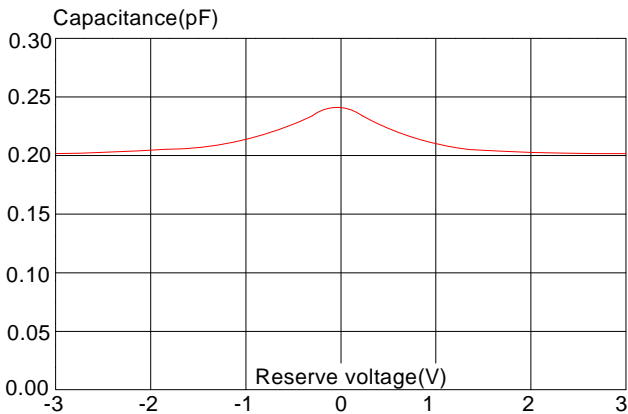
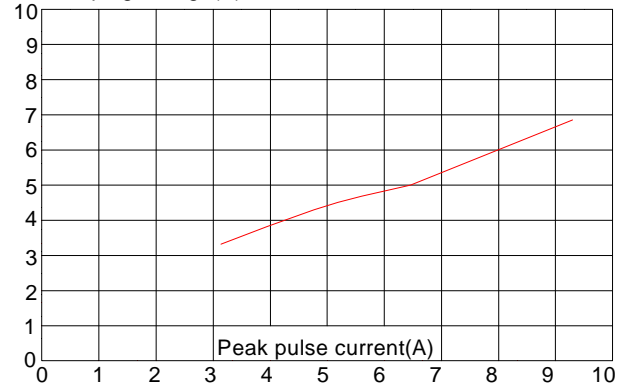
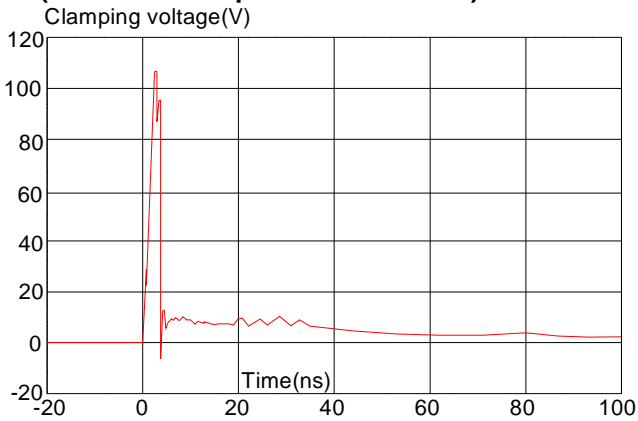


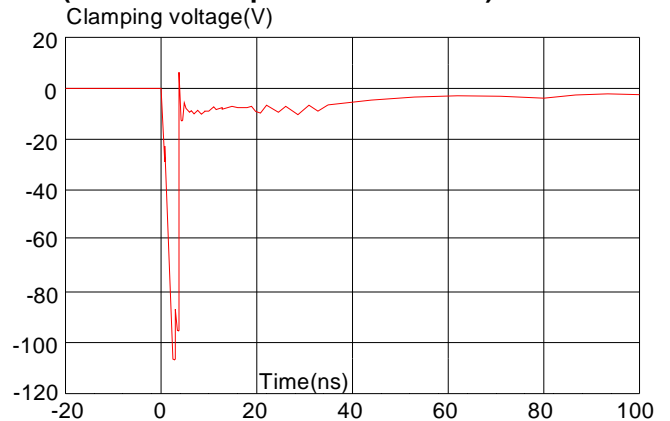
FIG.8: Clamping voltage vs. peak pulse current(8/20 s)



**FIG.9: ESD clamping of I/O to I/O
(+8kV contact per IEC 61000-4-2)**

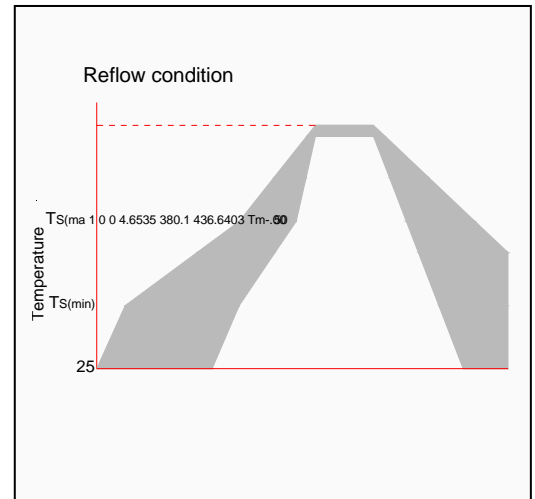


**FIG.10: ESD clamping of I/O to I/O
(-8kV contact per IEC 61000-4-2)**

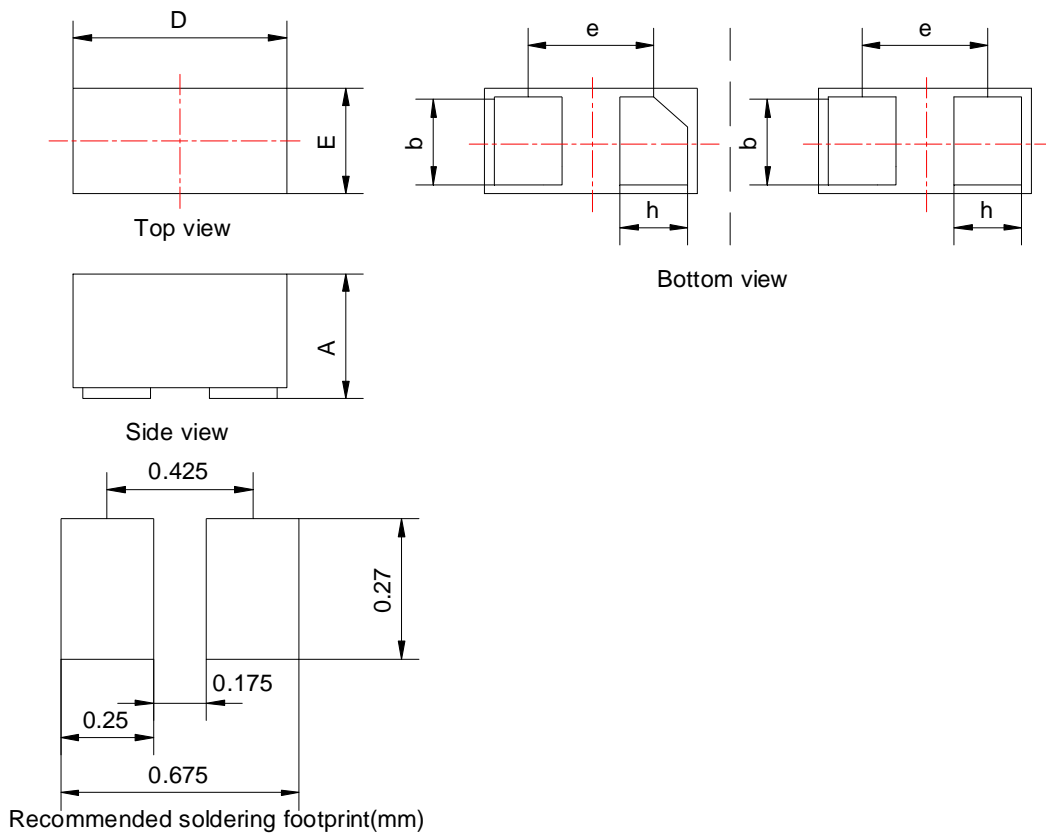


SOLDERING PARAMETERS

| | | |
|--------------------------------------------------------|-----------------------------------|-------------------------------------------|
| Reflow Condition | | Pb-Free assembly (see figure at right) |
| Pre Heat | -Temperature Min ($T_{s(min)}$) | +150 |
| | -Temperature Max($T_{s(max)}$) | +200 |
| | -Time (Min to Max) (ts) | 60-180 secs. |
| Average ramp up rate (Liquidus Temp (T_L) to peak) | | 3 /sec. Max |
| $T_{s(max)}$ to T_L - Ramo31 rBate | | 3 /sec. Max |
| Reflow | -Temperature(T_L)(Liquidus) | +217 |
| | -Temperature(t_L) | 60-150 secs. |
| Peak Temp (T_p) | | +260(+0/-5) |
| Time within 5 of actual Peak Temp (t_p) | | 20-40secs. |
| Ramo3down Rate | | 6 /sec. Max |
| Time 25 to Peak Temp (T_p) | | 8 min. Max |
| Do not exceed | | +260 |



PACKAGE MECHANICAL DATA

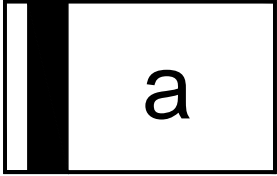


| Symbol | Millimeters | | | Inches | | |
|--------|-------------|------|------|--------|-------|-------|
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 0.25 | 0.30 | 0.34 | 0.010 | 0.012 | 0.013 |
| D | 0.55 | 0.60 | 0.65 | 0.022 | 0.024 | 0.026 |
| E | 0.25 | 0.30 | 0.35 | 0.010 | 0.012 | 0.014 |
| b | 0.2 | 0.23 | 0.3 | 0.008 | 0.009 | 0.012 |
| e | 0.4 | | | 0.016 | | |
| h | 0.13 | 0.17 | 0.24 | 0.005 | 0.007 | 0.009 |

TAPE AND REEL INFORMATION DFN0603 2L



MARKING CODE

| Part Number | Marking Code |
|-------------|------------------------------------------------------------------------------------------------------------------------------|
| JEB01SCDS-A | <p data-bbox="932 331 1043 371">PIN 1</p>  |