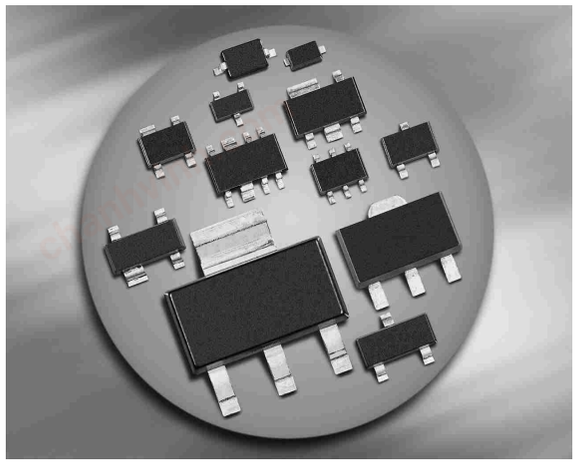
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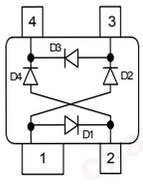
**Silicon TVS diodes Array**



- ESD / transient protection of e.g. ADSL, VDSL, ISDN, WAN, LAN, I²C Bus, Microcontroller Inputs, Video and other high-speed data lines in telecom applications:
  IEC61000-4-2 (ESD): ± 15 kV (Air / Contact)
  IEC61000-4-4 (EFT): 4 kV / 80 A (5/50 ns)
  IEC61000-4-5 (Lightning): 27 A (8/20 µs)
- Very low capacitance
- Extremly low reverse current < 5 nA
- Pb-free (RoHS compliant) package

RoHS

**DSL70**




| Type | Package | Configuration | Marking |
|---|---|---|---|
| DSL70 | SOT143 | 2 channel, rail to rail | E4s |

**Maximum Ratings** at $T_A$ = 25°C, unless otherwise specified

| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| ESD contact discharge per diode[1)] | $V_{ESD}$ | 15 | kV |
| Peak pulse current ($t_p$ = 8 / 20 µs)[2)] | $I_{pp}$ | 27 | A |
| Peak pulse power ($t_p$ = 8 / 20 µs) | $P_{pk}$ | 245 | W |
| Operating temperature range | $T_{op}$ | -55...125 | °C |
| Storage temperature | $T_{stg}$ | -65...150 | |

[1] $V_{ESD}$ according to IEC61000-4-2

[2] $I_{pp}$ according to IEC61000-4-5

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**Electrical Characteristics** at $T_A$ = 25°C, unless otherwise specified

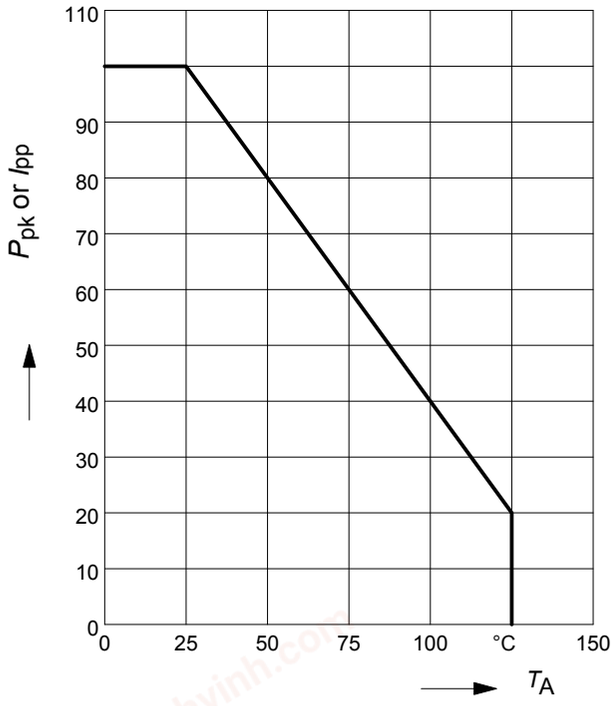
| Parameter | Symbol | Values | | | Unit |
|---|---|---|---|---|---|
| | | min. | typ. | max. | |
| **Characteristics** - | | | | | |
| Reverse working voltage | $V_{RWM}$ | - | - | 50 | V |
| Reverse current<br>$V_R$ = 50 V | $I_R$ | - | - | 5 | nA |
| Forward clamping voltage[1)] | $V_{FC}$ | | | | V |
| $I_{PP}$ = 1 A, $t_P$ = 8/20 µs | | - | 1 | 1.5 | |
| $I_{PP}$ = 10 A, $t_P$ = 8/20 µs | | - | 2.5 | 3 | |
| $I_{PP}$ = 24 A, $t_P$ = 8/20 µs | | - | 5 | 6 | |
| $I_{PP}$ = 27 A, $t_P$ = 8/20 µs | | - | 6 | 9 | |
| Diode capacitance | $C_T$ | | | | pF |
| $V_R$ = 0 V, $f$ = 1 MHz, between I/0 and GND | | - | 2.5 | 5 | |
| $V_R$ = 0 V, $f$ = 1 MHz, between I/0 pins | | - | 1.25 | 2.5 | |

[1] $I_{PP}$ according to IEC61000-4-5

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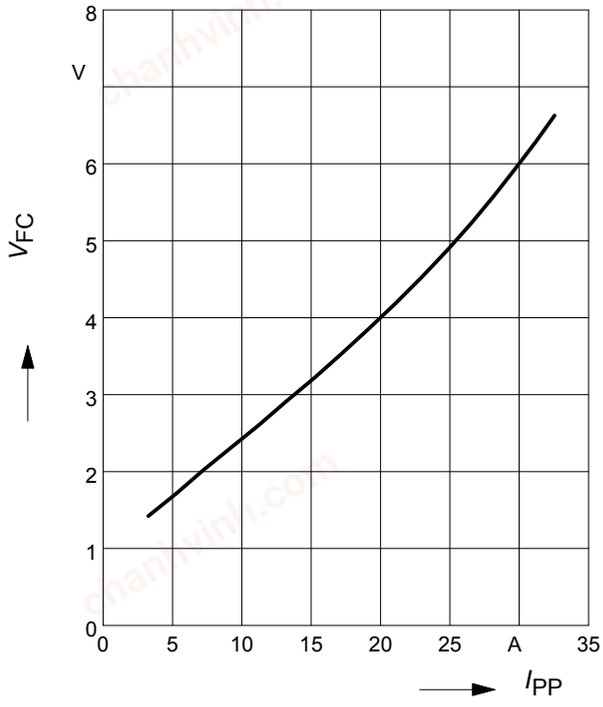


**Power derating curve $P_{pk} = f(T_A)$**



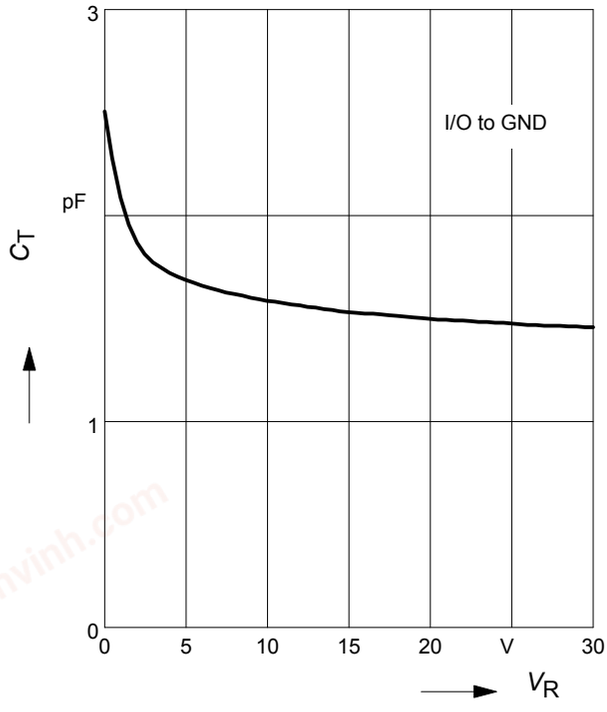

**Forward clamping voltage $V_{FC} = f(I_{PP})$**

$t_p$ = 8 / 20 µs




**Diode capacitance $C_T = f(V_R)$**

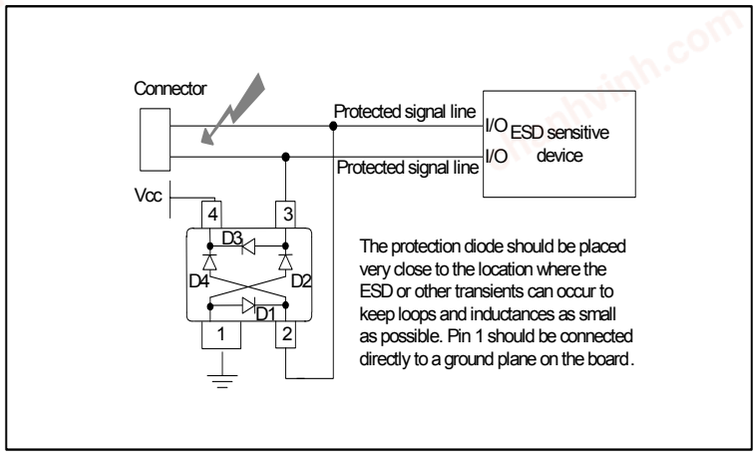
$f$ = 1MHz



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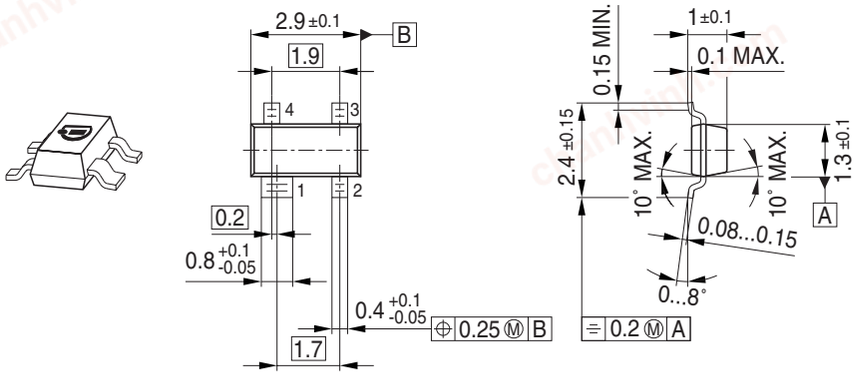
**Application example** DSL70
dual channel, rail to rail configuration



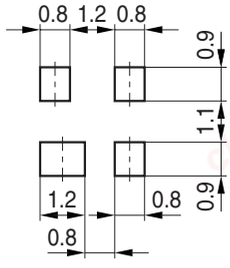
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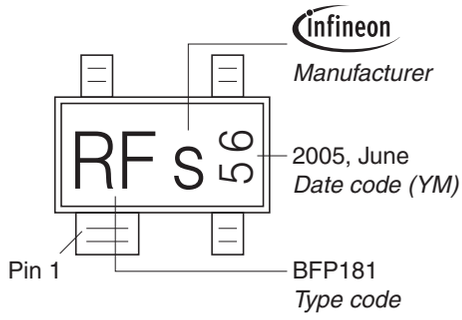
## Package Outline




## Foot Print

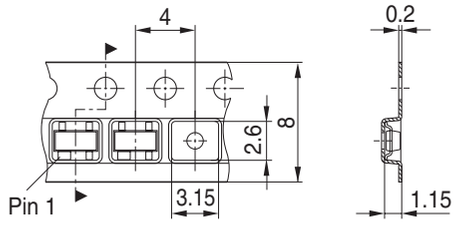



## Marking Layout (Example)




## Standard Packing

Reel ø180 mm = 3.000 Pieces/Reel
Reel ø330 mm = 10.000 Pieces/Reel



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