



PJESD5V6LC-4W / PJESD6V2LC-4W / PJESD6V8LC-4W

LOW CAPACITANCE UNIDIRECTIONAL QUADRUPLE ESD PROTECTION DIODE ARRAYS

FEATURES

- ESD protection of up to for lines
- Low diode capacitance
- IEC61000-4-2 ESD 15kV air, 8kV Contact compliance
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

Case : SOT-353, Plastic

Terminals : Solderable per MIL-STD-750, Method 2026

Polarity : See Diagram Below

Approx.Weight : 0.0057 grams

Marking Code :

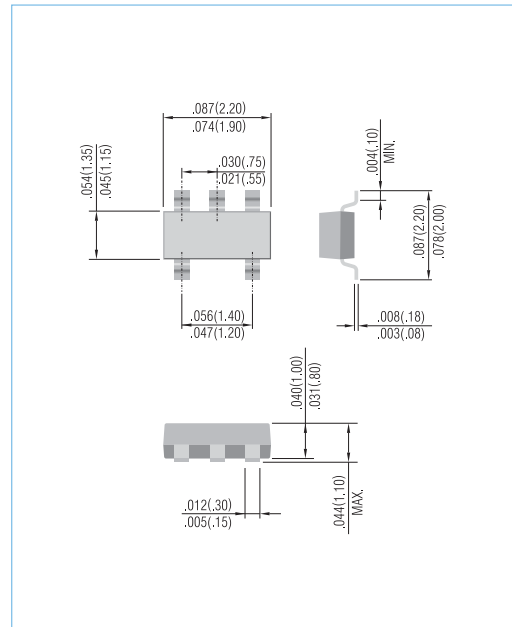
PJESD5V6LC-4W=SAM

PJESD6V2LC-4W=SAN

PJESD6V8LC-4W=SAP

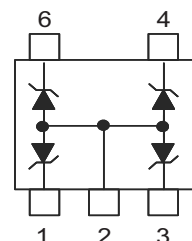
SOT-353

Unit: inch (mm)



LIMITING VALUES

| Parameter | Symbol | Conditions | Value | Units |
|--|-----------------------------------|-----------------------|----------------------|-------|
| Peak pulse power | P _{PP} | tp=8/20μs | 30 | W |
| Peak pulse current PJESD5V6LC-4W PJESD6V2LC-4W PJESD6V8LC-4W | I _{PP} | tp=8/20μs | 3.00 2.75 2.50 | A |
| Non-repetitive peak forward current | I _{FSM} | square wave tp=1ms | 3.50 | A |
| Non-repetitive peak reverse current PJESD5V6LC-4W PJESD6V2LC-4W PJESD6V8LC-4W | I _{ZSM} | square wave tp=1ms | 0.90 0.85 0.80 | A |
| Non-repetitive peak reverse power dissipation | P _{ZSM} | square wave tp=1ms | 6.00 | W |
| Operating Junction and Storage Temperature Range | T _J , T _{STG} | | -55 to 150 | °C |





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| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|--|-----------|---|----------------------|----------------------|----------------------|----------|
| Reverse stand off voltage PJESD5V6LC-4W PJESD6V2LC-4W PJESD6V8LC-4W | V_{RWM} | - | - | - | 3.30 4.30 5.00 | V |
| Reverse leakage current PJESD5V6LC-4W PJESD6V2LC-4W PJESD6V8LC-4W | I_{RM} | $V_{RWM}=3.30V$ $V_{RWM}=4.30V$ $V_{RWM}=5.00V$ | - | - | 1.00 1.00 1.00 | μA |
| Breakdown voltage PJESD5V6LC-4W PJESD6V2LC-4W PJESD6V8LC-4W | V_{BR} | $I_T=1.00mA$ | 5.82 6.45 6.97 | 5.85 6.48 7.01 | 5.88 6.51 7.04 | V |
| Diode capacitance PJESD5V6LC-4W PJESD6V2LC-4W PJESD6V8LC-4W | C_D | $f=1MHz$ $V_R=0V$ | - | 22.0 19.0 16.0 | 28.0 24.0 19.0 | pF |
| Clamping voltage PJESD5V6LC-4W | V_{CL} | $I_{PP}=1.00A$ $I_{PP}=3.00A$ | - | - | 8.00 12.0 | V |
| Clamping voltage PJESD6V2LC-4W | V_{CL} | $I_{PP}=1.00A$ $I_{PP}=2.75A$ | - | - | 9.00 12.5 | V |
| Clamping voltage PJESD6V8LC-4W | V_{CL} | $I_{PP}=1.00A$ $I_{PP}=2.50A$ | - | - | 10.0 13.0 | V |
| Differential resistance PJESD5V6LC-4W PJESD6V2LC-4W PJESD6V8LC-4W | r_{dif} | $I_R=1mA$ | - | - | 200 150 100 | Ω |



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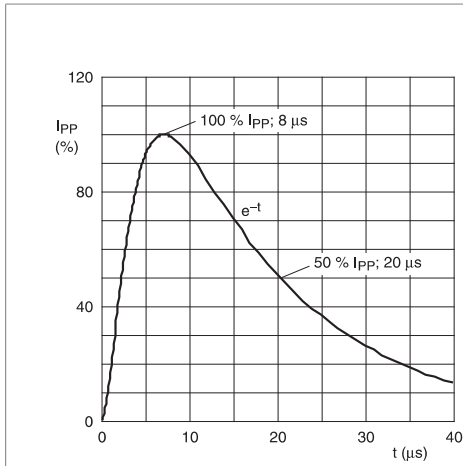


Fig 1. 8/20 μ s pulse waveform according to IEC 61000-4-5

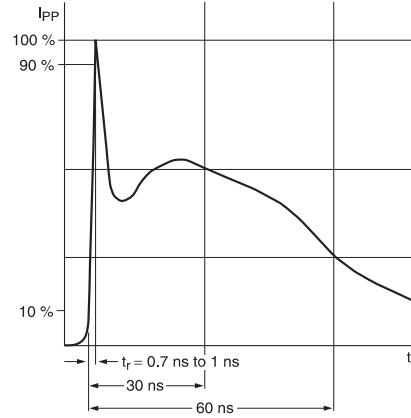
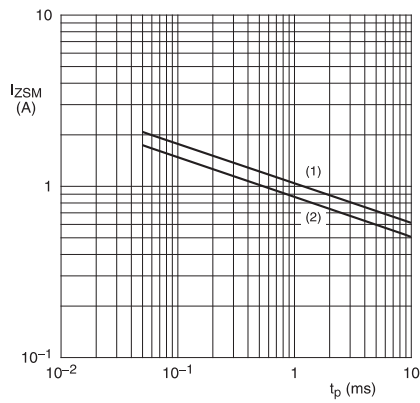
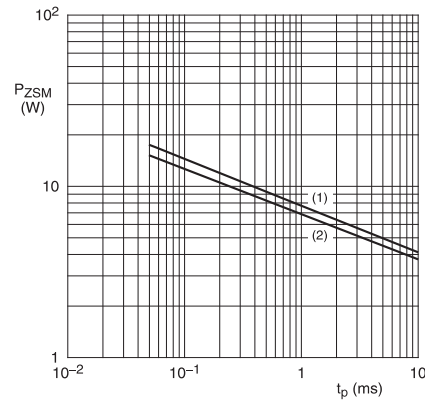


Fig 2. ESD pulse waveform according to IEC 61000-4-2



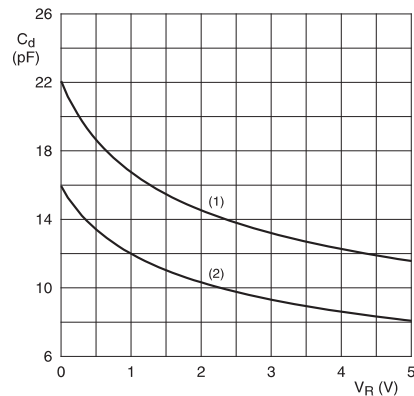
$T_{amb} = 25\text{ }^{\circ}\text{C}$
(1) PESD3V3L4UF; PESD3V3L4UG; PESD3V3L4UW
(2) PESD5V0L4UF; PESD5V0L4UG; PESD5V0L4UW

Fig 3. Non-repetitive peak reverse current as a function of pulse duration; maximum values



$T_{amb} = 25\text{ }^{\circ}\text{C}$
(1) PESD3V3L4UF; PESD3V3L4UG; PESD3V3L4UW
(2) PESD5V0L4UF; PESD5V0L4UG; PESD5V0L4UW

Fig 4. Non-repetitive peak reverse power dissipation as a function of pulse duration; maximum values



$f = 1\text{ MHz}; T_{amb} = 25\text{ }^{\circ}\text{C}$
(1) PESD3V3L4UF; PESD3V3L4UG; PESD3V3L4UW
(2) PESD5V0L4UF; PESD5V0L4UG; PESD5V0L4UW

Fig 5. Diode capacitance as a function of reverse voltage; typical values

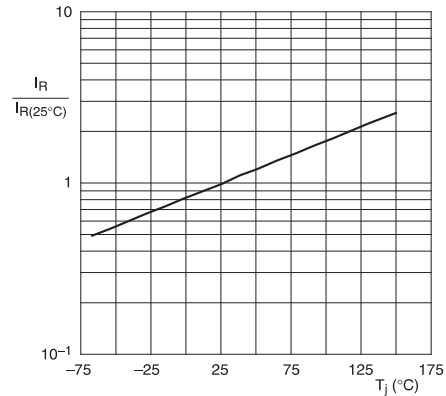
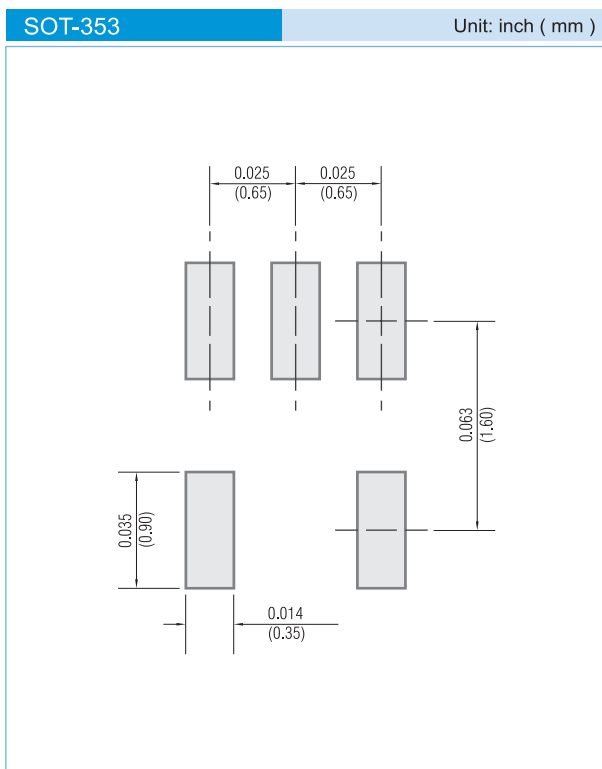


Fig 6. Relative variation of reverse current as a function of junction temperature; typical values



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 10K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel

LEGAL STATEMENT

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