



# 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 :

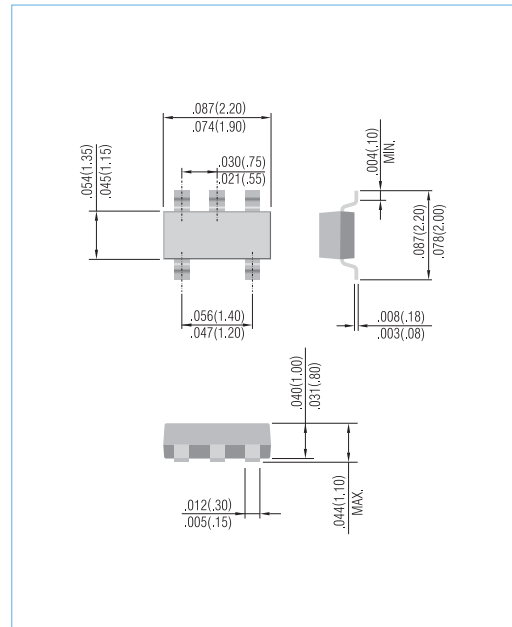
PJESD5V6LC-4W=SAM

PJESD6V2LC-4W=SAN

PJESD6V8LC-4W=SAP

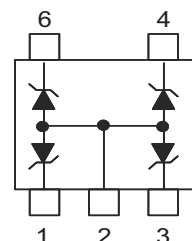
SOT-353

Unit: inch ( mm )



### LIMITING VALUES

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



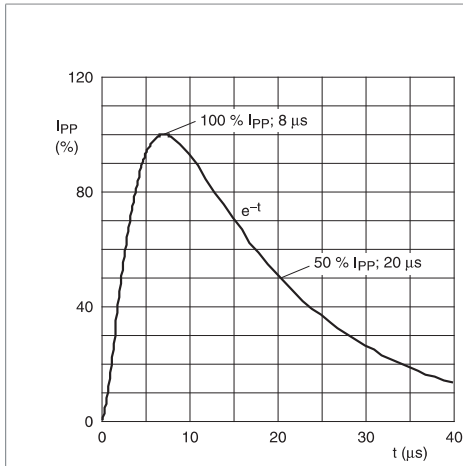


## PJESD5V6LC-4W / PJESD6V2LC-4W / PJESD6V8LC-4W

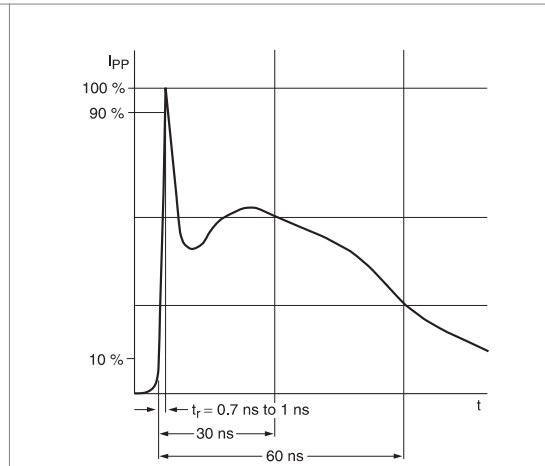
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse stand off voltage PJESD5V6LC-4W PJESD6V2LC-4W PJESD6V8LC-4W	$V_{RWM}$	-	-	-	3.30 4.30 5.00	V
Reverse leakage current PJESD5V6LC-4W PJESD6V2LC-4W PJESD6V8LC-4W	$I_{RM}$	$V_{RWM}=3.30V$ $V_{RWM}=4.30V$ $V_{RWM}=5.00V$	-	-	1.00 1.00 1.00	$\mu A$
Breakdown 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	$\Omega$



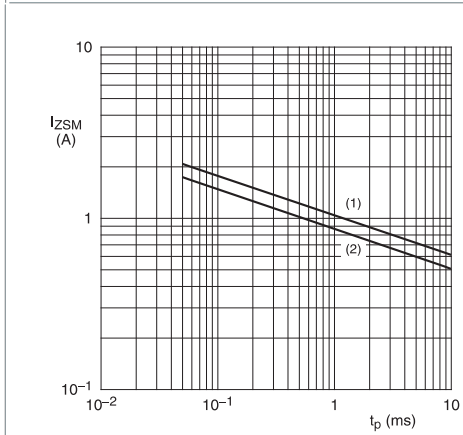
# PJESD5V6LC-4W / PJESD6V2LC-4W / PJESD6V8LC-4W



**Fig 1. 8/20  $\mu$ s pulse waveform according to IEC 61000-4-5**

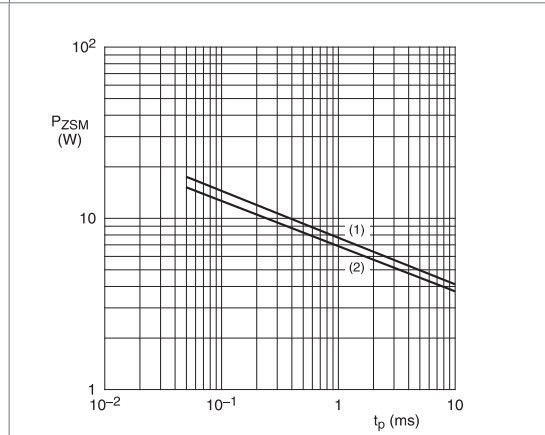


**Fig 2. ESD pulse waveform according to IEC 61000-4-2**



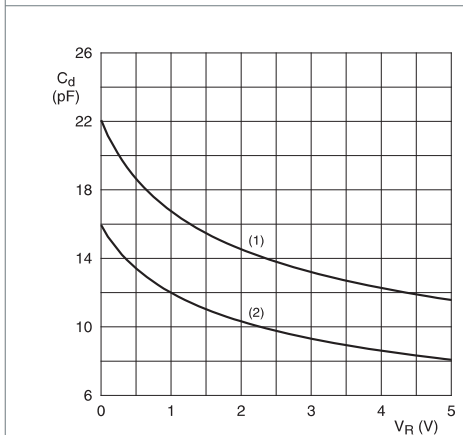
$T_{amb} = 25\text{ }^{\circ}\text{C}$   
(1) PESD3V3L4UF; PESD3V3L4UG; PESD3V3L4UW  
(2) PESD5V0L4UF; PESD5V0L4UG; PESD5V0L4UW

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



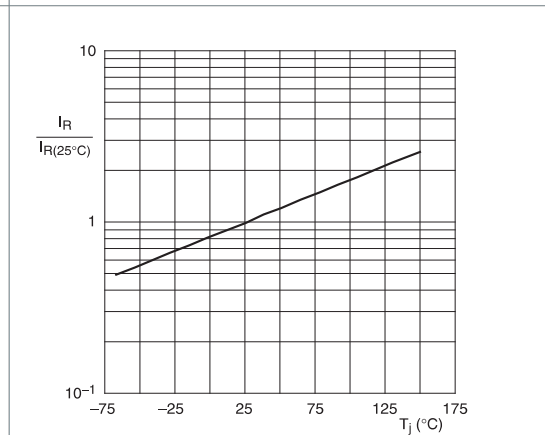
$T_{amb} = 25\text{ }^{\circ}\text{C}$   
(1) PESD3V3L4UF; PESD3V3L4UG; PESD3V3L4UW  
(2) PESD5V0L4UF; PESD5V0L4UG; PESD5V0L4UW

**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**

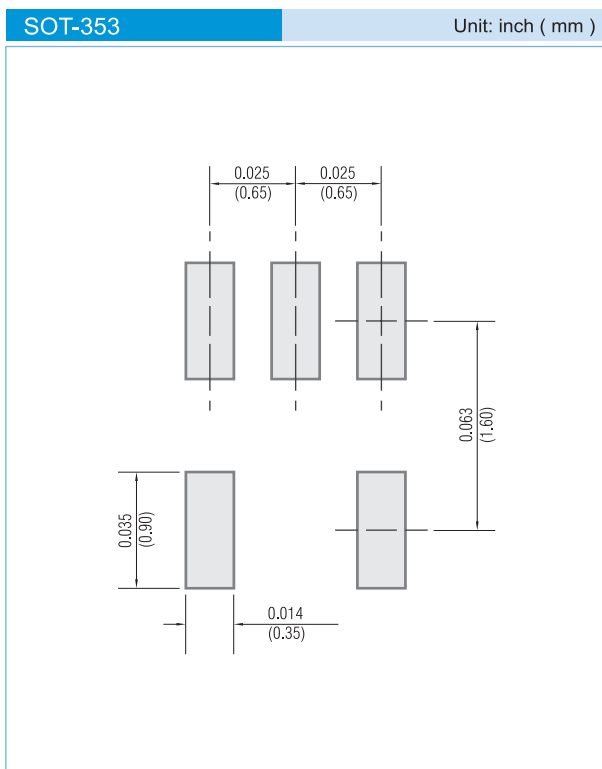


**Fig 6. Relative variation of reverse current as a function of junction temperature; typical values**



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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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