



# PJSD03W~PJSD36W

## SINGLE LINE TVS DIODE FOR ESD PROTECTION PORTABLE ELECTRONICS

**VOLTAGE** 3~36 Volts **POWER** 320 Watts

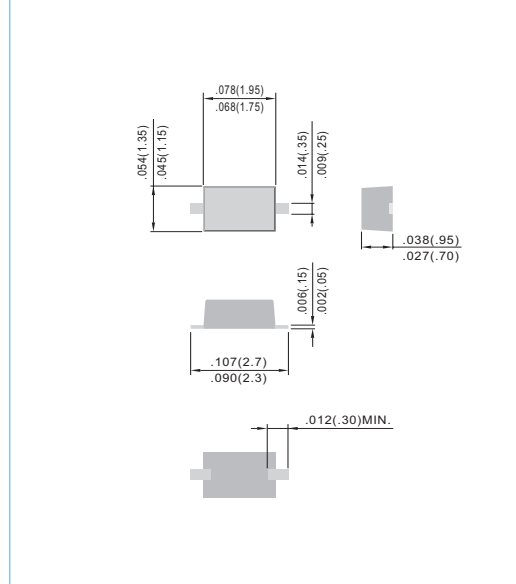
**SOD-323** Unit: inch (mm)

### FEATURES

- 320 Watts peak pulses power(  $t_p=8/20\mu s$ )
- Small package for use in portable electronics
- Suitable replacement for MLV'S in ESD protection applications
- Low clamping voltage and leakage current
- Pb free product are available : 99% Sn above can meet RoHS environment substance directive request

### APPLICATIONS

- Case: SOD-323 plastic
- Terminals : Solderable per MIL-STD-750,Method 2026
- Approx Weight: 0.0041 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

#### ABSOLUTE MAXIMUM RATING

Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p=8/20 \mu s$ )	$P_{PK}$	320	W
ESD Voltage	$V_{ESD}$	25	KV
Operating Temperature	$T_J$	-50°C to 150 °C	°C
Storage Temperature	$T_{STG}$	-50°C to 150 °C	°C

#### ELECTRICAL CHARACTERISTICS

PJSD03W						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	$V_{RWM}$	-	-	-	3.3	V
Reverse Breakdown Voltage	$V_{BR}$	$I_{BR}=1mA$	4	-	-	V
Reverse Leakage Current	$I_R$	$V_R=3.3V$	-	-	125	$\mu A$
Clamping Voltage(8/20 $\mu s$ )	$V_C$	$I_{PP}=1A$	-	-	6.5	V
Off State Junction Capacitance	$C_J$	0Vdc Bias=f=1MHz	-	450	-	pF
Off State Junction Capacitance	$C_J$	5Vdc Bias=f=1MHz	-	150	-	pF



# PJSD03W~PJSD36W

PJSD05W						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	$V_{RWM}$	-	-	-	5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_{BR}=1mA$	6	-	-	V
Reverse Leakage Current	$I_R$	$V_R=5V$	-	-	10	$\mu A$
Clamping Voltage(8/20 $\mu s$ )	$V_C$	$I_{pp}=1A$	-	-	9.8	V
Off State Junction Capacitance	$C_J$	0Vdc Bias=f=1MHz	-	300	-	pF
Off State Junction Capacitance	$C_J$	5Vdc Bias=f=1MHz	-	100	-	pF

PJSD08W						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	$V_{RWM}$	-	-	-	8	V
Reverse Breakdown Voltage	$V_{BR}$	$I_{BR}=1mA$	8.5	-	-	V
Reverse Leakage Current	$I_R$	$V_R=8V$	-	-	10	$\mu A$
Clamping Voltage(8/20 $\mu s$ )	$V_C$	$I_{pp}=1A$	-	-	13.4	V
Off State Junction Capacitance	$C_J$	0Vdc Bias=f=1MHz	-	150	-	pF
Off State Junction Capacitance	$C_J$	5Vdc Bias=f=1MHz	-	80	-	pF

PJSD12W						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	$V_{RWM}$	-	-	-	12	V
Reverse Breakdown Voltage	$V_{BR}$	$I_{BR}=1mA$	13.3	-	-	V
Reverse Leakage Current	$I_R$	$V_R=12V$	-	-	1	$\mu A$
Clamping Voltage(8/20 $\mu s$ )	$V_C$	$I_{pp}=1A$	-	-	19	V
Off State Junction Capacitance	$C_J$	0Vdc Bias=f=1MHz	-	130	-	pF
Off State Junction Capacitance	$C_J$	5Vdc Bias=f=1MHz	-	50	-	pF

PJSD15W						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	$V_{RWM}$	-	-	-	15	V
Reverse Breakdown Voltage	$V_{BR}$	$I_{BR}=1mA$	16.7	-	-	V
Reverse Leakage Current	$I_R$	$V_R=15V$	-	-	1	$\mu A$
Clamping Voltage(8/20 $\mu s$ )	$V_C$	$I_{pp}=1A$	-	-	24	V
Off State Junction Capacitance	$C_J$	0Vdc Bias=f=1MHz	-	120	-	pF
Off State Junction Capacitance	$C_J$	5Vdc Bias=f=1MHz	-	30	-	pF



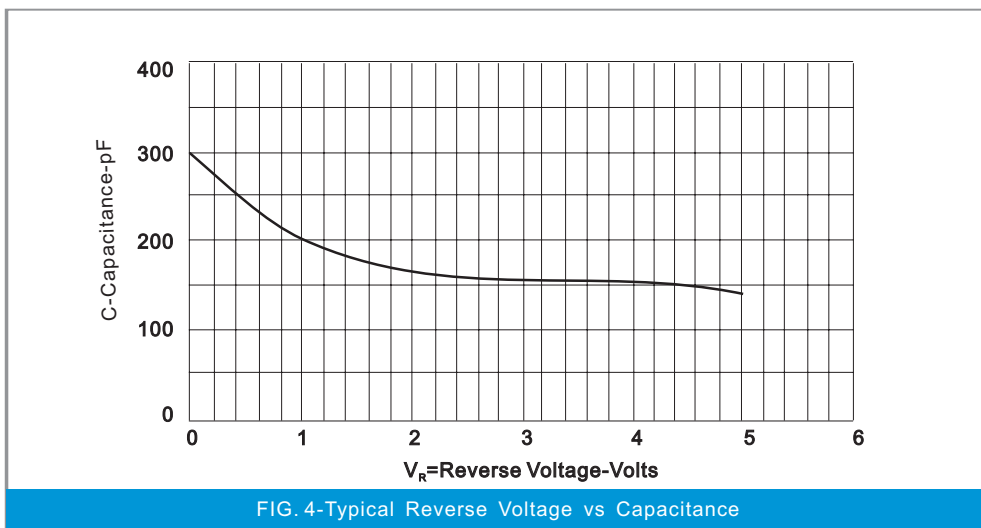
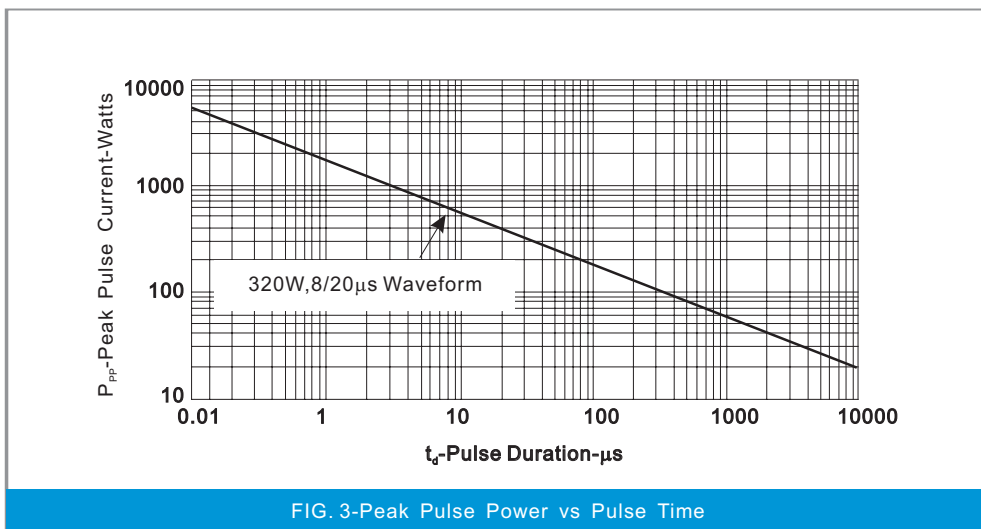
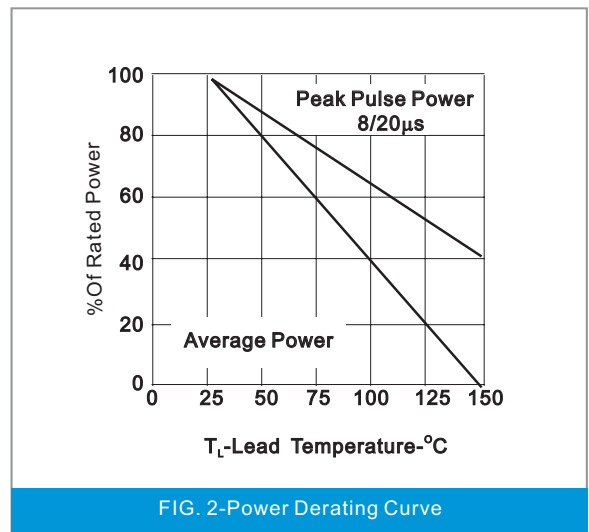
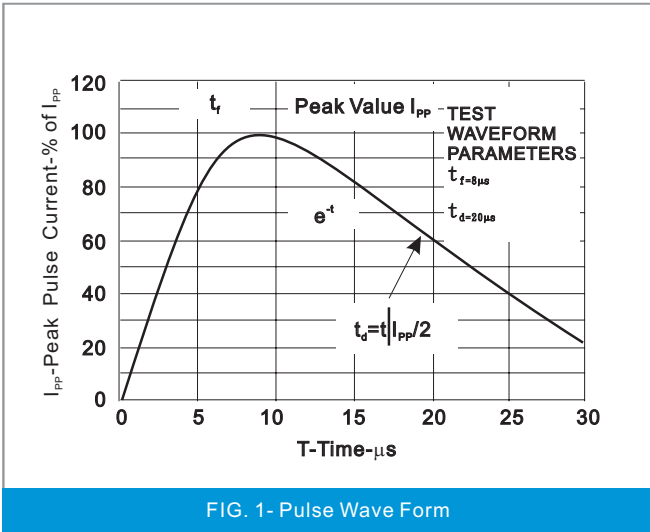
## PJSD03W~PJSD36W

PJSD24W						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	$V_{RWM}$	-	-	-	24	V
Reverse Breakdown Voltage	$V_{BR}$	$I_{BR}=1mA$	26.7	-	-	V
Reverse Leakage Current	$I_R$	$V_R=24V$	-	-	1	$\mu A$
Clamping Voltage(8/20 $\mu s$ )	$V_C$	$I_{PP}=1A$	-	-	43	V
Off State Junction Capacitance	$C_J$	0Vdc Bias=f=1MHz	-	80	-	pF
Off State Junction Capacitance	$C_J$	5Vdc Bias=f=1MHz	-	10	-	pF

PJSD36W						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	$V_{RWM}$	-	-	-	36	V
Reverse Breakdown Voltage	$V_{BR}$	$I_{BR}=1mA$	40	-	-	V
Reverse Leakage Current	$I_R$	$V_R=36V$	-	-	1	$\mu A$
Clamping Voltage(8/20 $\mu s$ )	$V_C$	$I_{PP}=1A$	-	-	60	V
Off State Junction Capacitance	$C_J$	0Vdc Bias=f=1MHz	-	30	-	pF
Off State Junction Capacitance	$C_J$	5Vdc Bias=f=1MHz	-	1	-	pF



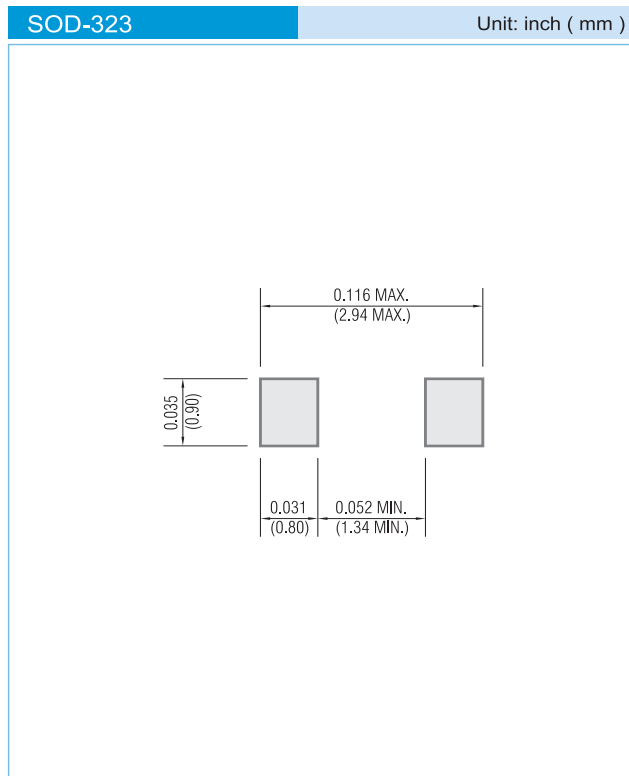
# PJSD03W~PJSD36W





# PJSD03W~PJSD36W

## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information
  - T/R - 12K per 13" plastic Reel
  - T/R - 5K per 7" plastic Reel

## LEGAL STATEMENT

### Copyright PanJit International, Inc 2006

The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.