

PJSD03W~PJSD36W

SINGLE LINE TVS DIODE FOR ESD PROTECTION PORTABLE ELECTRONICS

VOLTAGE 3~36 Volt **POWER** 350 Watt

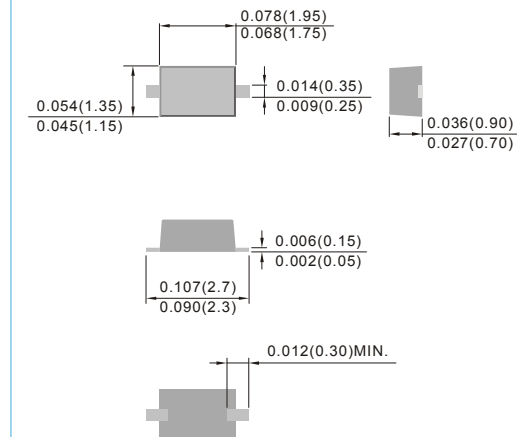
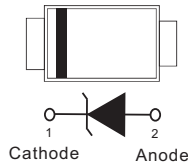
SOD-323 Unit : inch(mm)

FEATURES

- 350 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
- IEC 61000-4-2 (ESD) $\pm 15kV$ (air), $\pm 8kV$ (contact)
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

APPLICATIONS

- Case : SOD-323 plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Polarity : Color band cathode
- Apprx. Weight : 0.0001 ounce, 0.0041 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

ABSOLUTE MAXIMUM RATING

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20 \mu s$)	P_{PK}	350	W
ESD Voltage	V_{ESD}	25	KV
Operating Temperature	T_J	-50 to 150	°C
Storage Temperature	T_{STG}	-50 to 150	°C



PJSD03W~PJSD36W

PJSD03W Marking 03W						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	3.0	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1mA$	4	-	5.0	V
Reverse Leakage Current	I_R	$V_R=3.0V$	-	-	125	μA
Clamping Voltage(8/20 μs)	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
PJSD05W Marking 05W						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	5	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1mA$	6	-	7.2	V
Reverse Leakage Current	I_R	$V_R=5V$	-	-	10	μA
Clamping Voltage(8/20 μs)	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 Marking 08W						
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	-	10	V
Reverse Leakage Current	I_R	$V_R=8V$	-	-	10	μA
Clamping Voltage(8/20 μs)	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 Marking 12W						
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	-	15	V
Reverse Leakage Current	I_R	$V_R=12V$	-	-	1	μA
Clamping Voltage(8/20 μs)	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



PJSD03W~PJSD36W

PJSD15W Marking 15W						
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	-	20	V
Reverse Leakage Current	I_R	$V_R=15V$	-	-	1	μA
Clamping Voltage(8/20 μs)	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
PJSD24W Marking 24W						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	24	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1mA$	26.6	-	30	V
Reverse Leakage Current	I_R	$V_R=24V$	-	-	1	μA
Clamping Voltage(8/20 μs)	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 Marking 36W						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	36	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1mA$	39.9	-	45	V
Reverse Leakage Current	I_R	$V_R=36V$	-	-	1	μA
Clamping Voltage(8/20 μs)	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

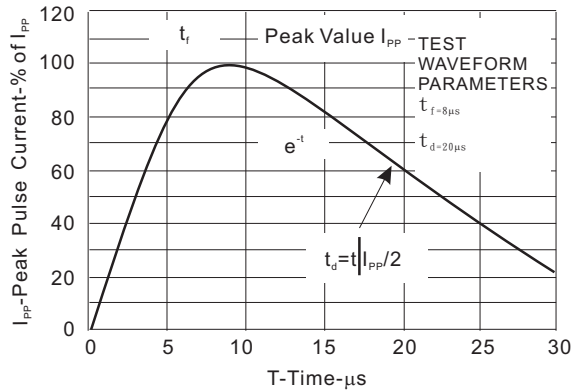


FIG. 1- Pulse Wave Form

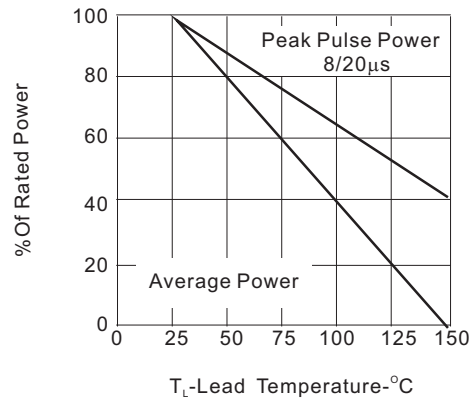


FIG. 2-Power Derating Curve

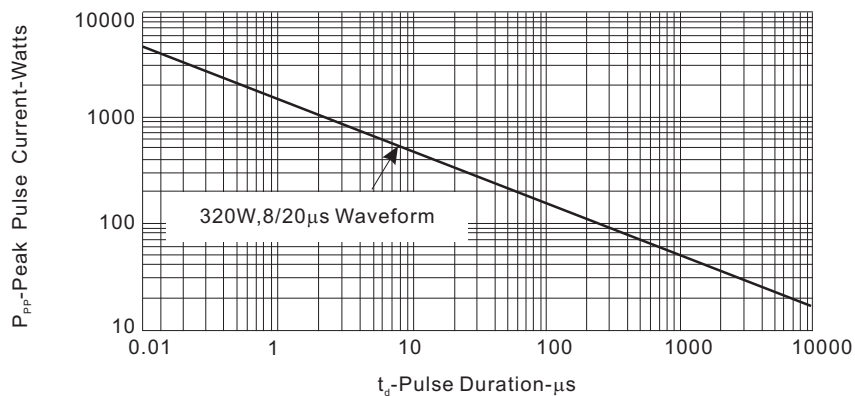


FIG. 3-Peak Pulse Power vs Pulse Time

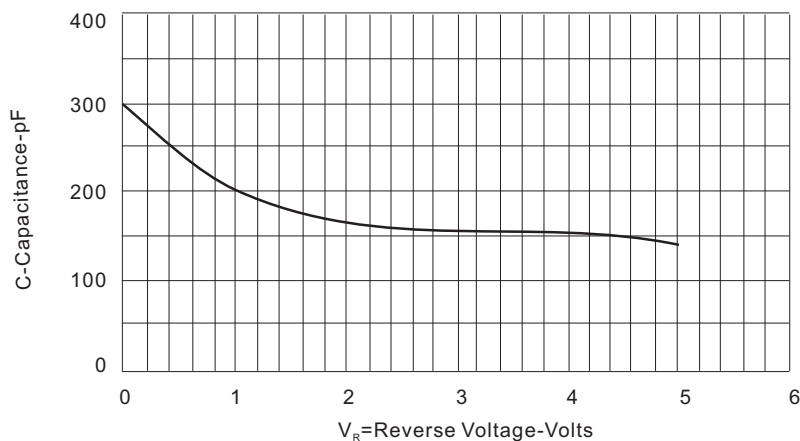


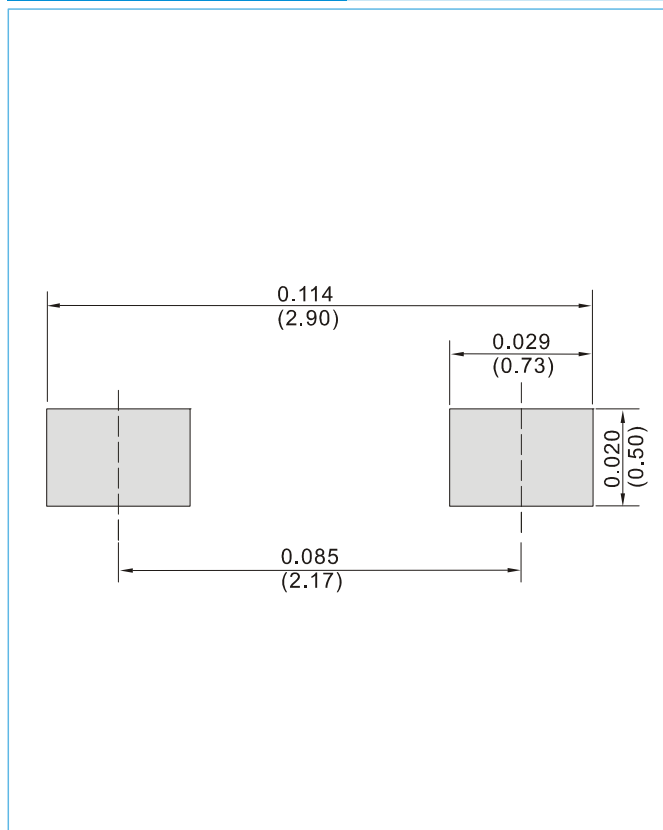
FIG. 4-Typical Reverse Voltage vs Capacitance

PJSD03W~PJSD36W

MOUNTING PAD LAYOUT

SOD-323

Unit : inch(mm)



ORDER INFORMATION

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



PJSD03W~PJSD36W

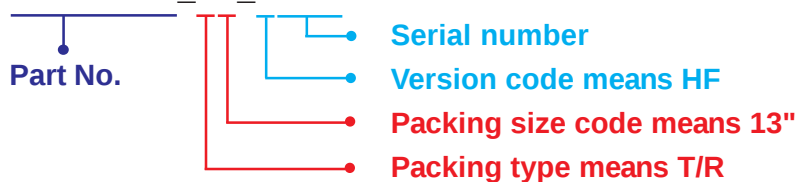
Part No_packing code_Version

PJSD03W_R1_00001

PJSD03W_R2_00001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



PJSD03W~PJSD36W

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Panjit:

[PJSD36W_R2_00001](#) [PJSD36W_R2_10001](#) [PJSD36W_R1_00001](#) [PJSD36W_R1_10001](#)