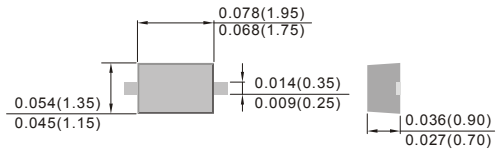
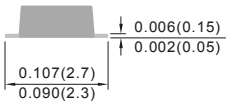
PJSD03W~PJSD36W

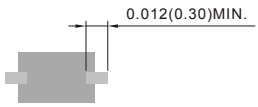
SINGLE LINE TVS DIODE FOR ESD PROTECTION PORTABLE ELECTRONICS

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

SOD-323 Unit : inch(mm)





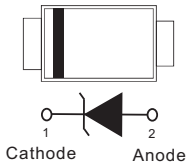


FEATURES

- 350 Watts peak pules power (tp=8/20μs)
- 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) ±15kV (air), ±8kV (contact)
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

APPLICATIONS

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



MAXIMUM RATINGS AND ELECTRICAL CHATACTERISTICS

ABSOLUTE MAXIMUM RATING

Rating	Symbol	Value	Units
Peak Pulse Power (tp=8/20 μs)	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

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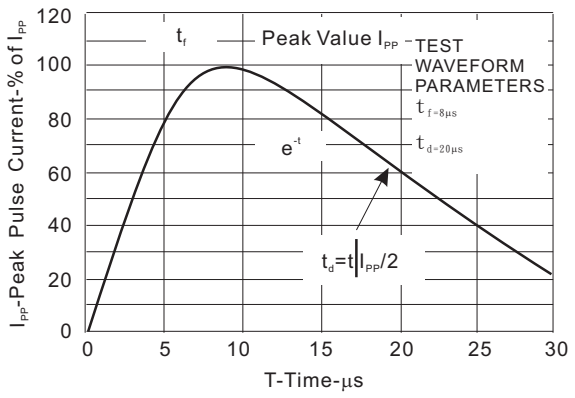

FIG. 1- Pulse Wave Form

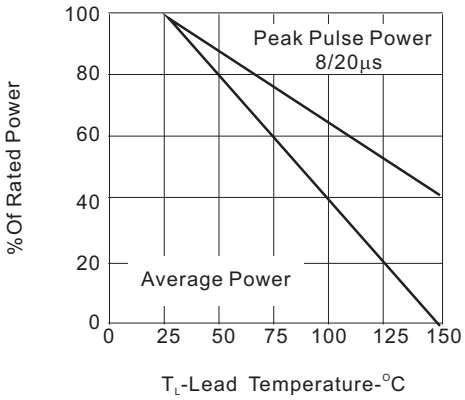

FIG. 2-Power Derating Curve

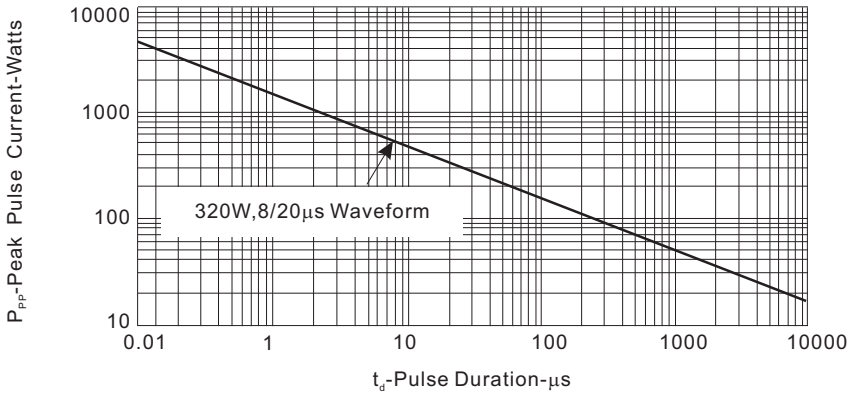

FIG. 3-Peak Pulse Power vs Pulse Time

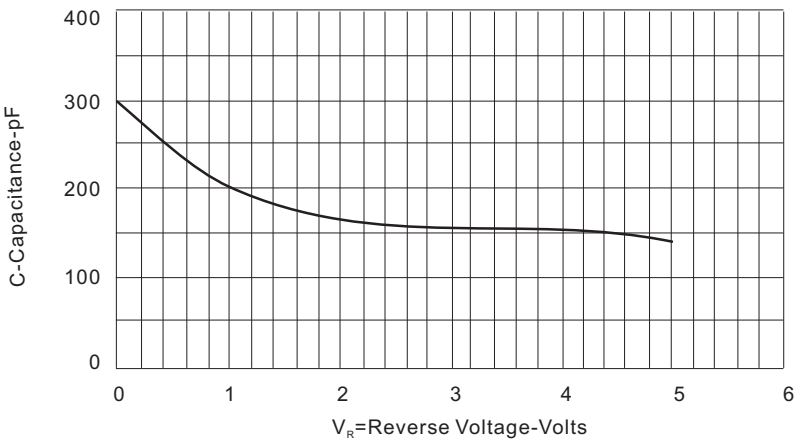

FIG. 4-Typical Reverse Voltage vs Capacitance

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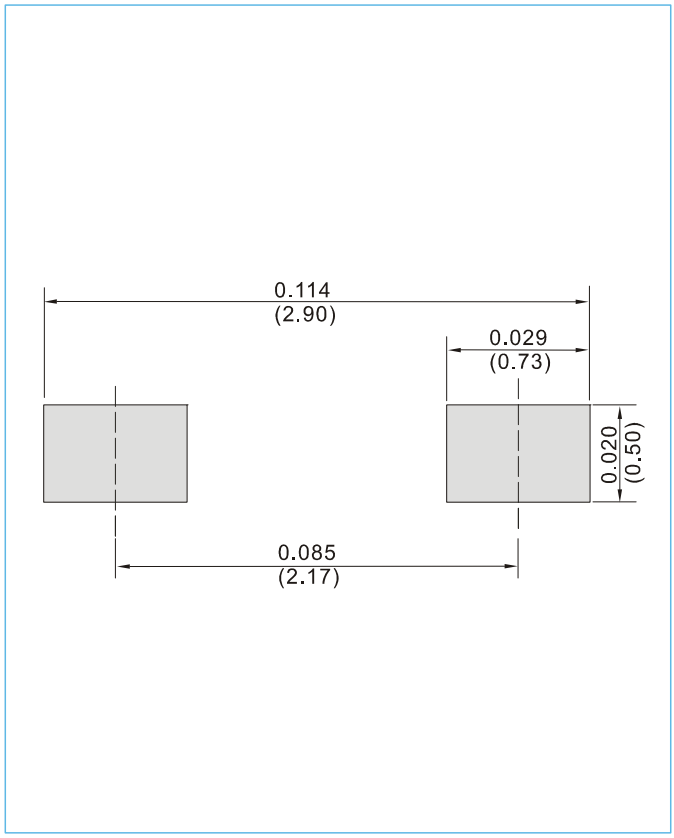
MOUNTING PAD LAYOUT

SOD-323 Unit : inch(mm)



ORDER INFORMATION

- Packing information

  T/R - 12K per 13" plastic Reel

  T/R - 5K per 7" plastic Reel

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Part No_packing code_Version

PJSD03W_R1_00001

PJSD03W_R2_00001

For example :

RB500V-40_R2_00001

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

Packing Code XX				Version Code XXXXX		
Packing type	1st Code	Packing size code	2nd Code	HF or RoHS	1st Code	2nd~5th 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			

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