PANJIT SEMI CONDUCTOR

PJSD03W~PJSD36W

SINGLE LINE TVS DIODE FOR ESD PROTECTION PORTABLE ELECTRONICS

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

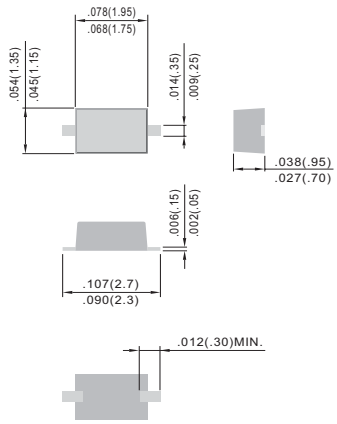
FEATURES

- 320 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
- 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

SOD-323 Unit: inch (mm)



MAXIMUM RATINGS AND ELECTRICAL CHATACTERISTICS

ABSOLUTE MAXIMUM RATING

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

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	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

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	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						
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	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						
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	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

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	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

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	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						
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	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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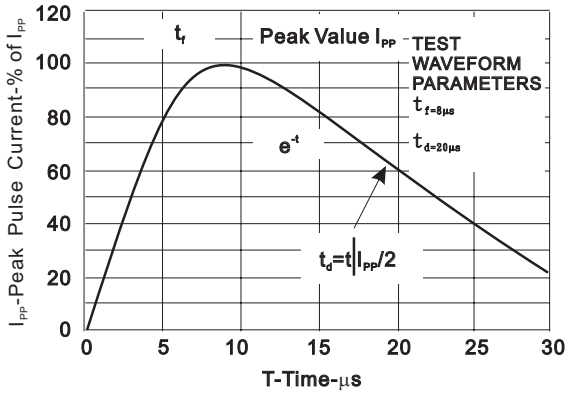


FIG. 1- Pulse Wave Form

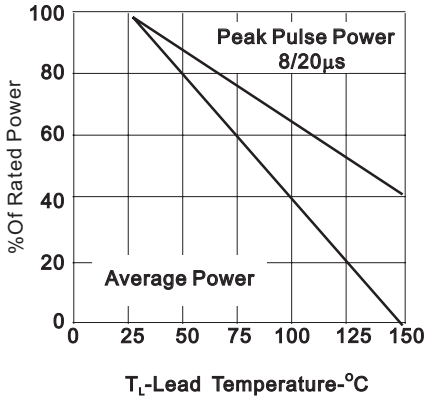


FIG. 2-Power Derating Curve

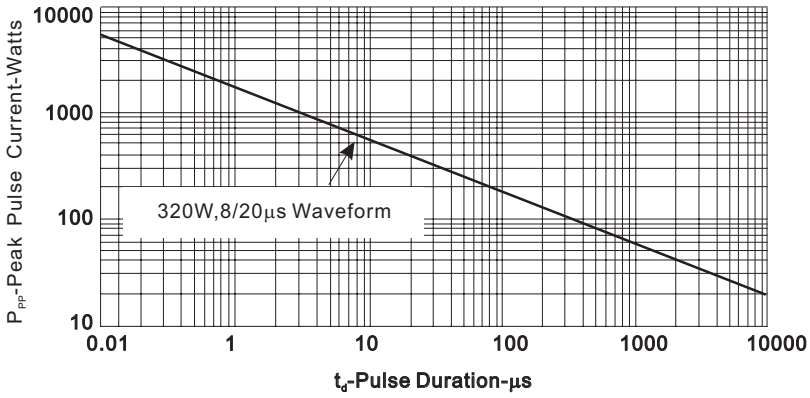


FIG. 3-Peak Pulse Power vs Pulse Time

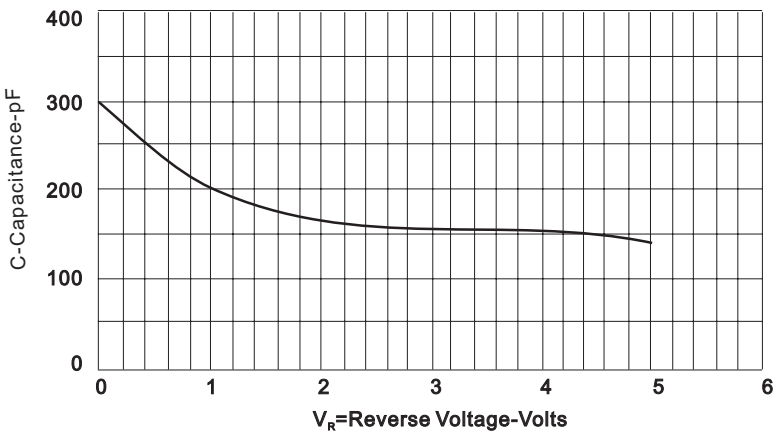
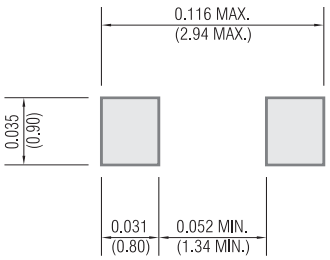


FIG. 4-Typical Reverse Voltage vs Capacitance

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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

LEGAL STATEMENT

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