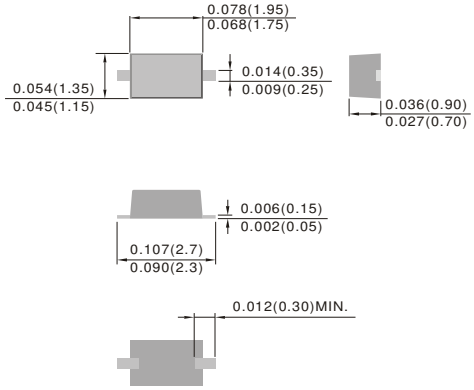
PJSD05CW SERIES

Single Line TVS Diode for ESD Protection in Portable Electronics

VOLTAGE	5 to 36 Volt	POWER	350 Watt

SOD-323 Unit : inch(mm)



FEATURES

- Transient protection for data lines to
  IEC 61000-4-2 (ESD)_+ 15kV (air)_+ 8kV (contact)
  IEC 61000-4-5 (Lightning) 24A (8/20 s)
- Small package for use in portable electronics
- Suitable replacement for MLV's in ESD protection applications
- Protects one I/O or power line
- Low clamping voltage
- Solid-state silicon avalanche technolngy
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case : SOD-323, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00014 ounces, 0.0041 grams
- Marking Code :

PJSD05CW=EZB	PJSD12CW=EZD	PJSD15CW=EZE
PJSD24CW=EZF	PJSD36CW=EZG	

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (t_P=8/20 s)	P_{PK}	350	Watts
Lead Soldering Temperature	T_L	260(10 sec.)	°C
Operating Temperature	T_J	-55 to +125	°C
Storage Temperature	T_{STG}	-55 to +150	°C

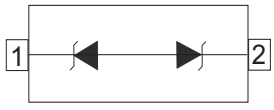


Fig.130

PJSD05CW SERIES

ELECTRICAL CHARACTERISTICS

PJSD05CW						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	5	V
Reverse Breakdown Voltage	V_{BR}	I_t=1mA	6.37	-	7.04	V
Reverse Leakage Current	I_R	V_{RWM}=5V, T=25°C	-	-	5	A
Clamping Voltage	V_C	I_{PP}=5A, t_p=8/20 s	-	-	9.8	V
Clamping Voltage	V_C	I_{PP}=24A, t_p=8/20 s	-	-	14.5	V
Junction Capacitance	C_J	V_R=0V, f=1MHz	-	-	200	pF
PJSD12CW						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	12	V
Reverse Breakdown Voltage	V_{BR}	I_t=1mA	13.3	-	14.7	V
Reverse Leakage Current	I_R	V_{RWM}=12V, T=25°C	-	-	1	A
Clamping Voltage	V_C	I_{PP}=5A, t_p=8/20 s	-	-	19	V
Clamping Voltage	V_C	I_{PP}=15A, t_p=8/20 s	-	-	24	V
Junction Capacitance	C_J	V_R=0V, f=1MHz	-	-	100	pF
PJSD15CW						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	15	V
Reverse Breakdown Voltage	V_{BR}	I_t=1mA	16.72	-	18.48	V
Reverse Leakage Current	I_R	V_{RWM}=15V, T=25°C	-	-	1	A
Clamping Voltage	V_C	I_{PP}=5A, t_p=8/20 s	-	-	24	V
Clamping Voltage	V_C	I_{PP}=10A, t_p=8/20 s	-	-	29	V
Junction Capacitance	C_J	V_R=0V, f=1MHz	-	-	75	pF
PJSD24CW						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	24	V
Reverse Breakdown Voltage	V_{BR}	I_t=1mA	26.6	-	29.4	V
Reverse Leakage Current	I_R	V_{RWM}=24V, T=25°C	-	-	1	A
Clamping Voltage	V_C	I_{PP}=1A, t_p=8/20 s	-	-	36	V
Clamping Voltage	V_C	I_{PP}=4A, t_p=8/20 s	-	-	42	V
Junction Capacitance	C_J	V_R=0V, f=1MHz	-	-	50	pF
PJSD36CW						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	36	V
Reverse Breakdown Voltage	V_{BR}	I_t=1mA	40.57	-	44.84	V
Reverse Leakage Current	I_R	V_{RWM}=36V, T=25°C	-	-	1	A
Clamping Voltage	V_C	I_{PP}=1A, t_p=8/20 s	-	-	58	V
Clamping Voltage	V_C	I_{PP}=3A, t_p=8/20 s	-	-	71	V
Junction Capacitance	C_J	V_R=0V, f=1MHz	-	-	45	pF

PJSD05CW SERIES

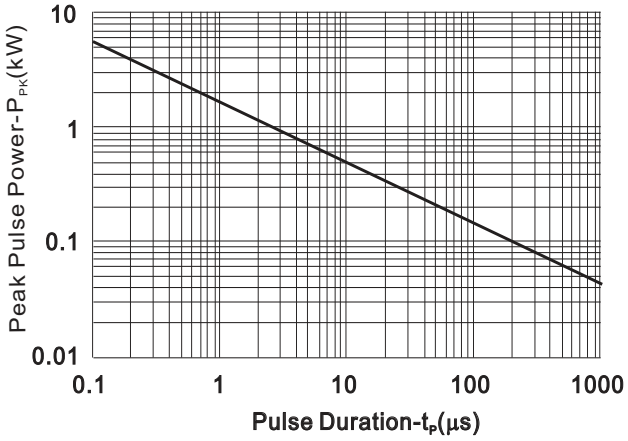


FIG.1 Non-Repetitive Peak Pulse Power vs. Pulse Time

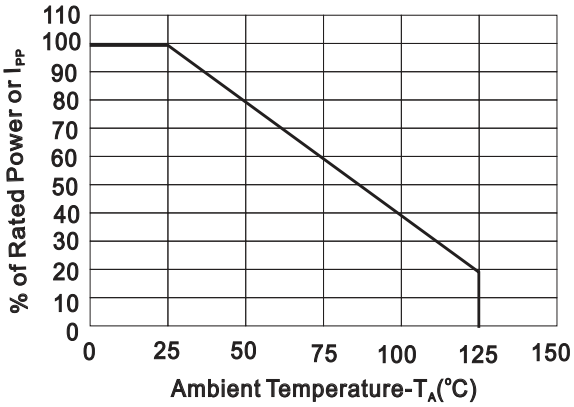


FIG.2 Power Derating Curve

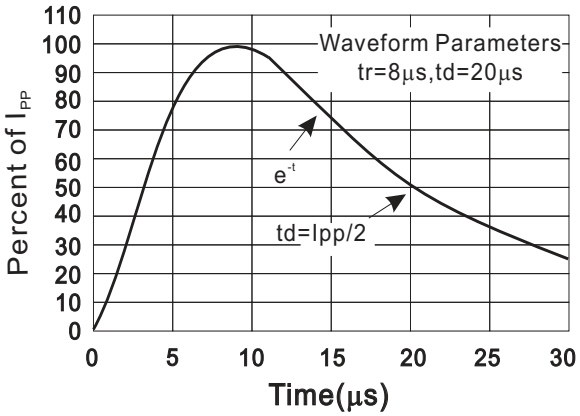


FIG.3 Pulse Waveform

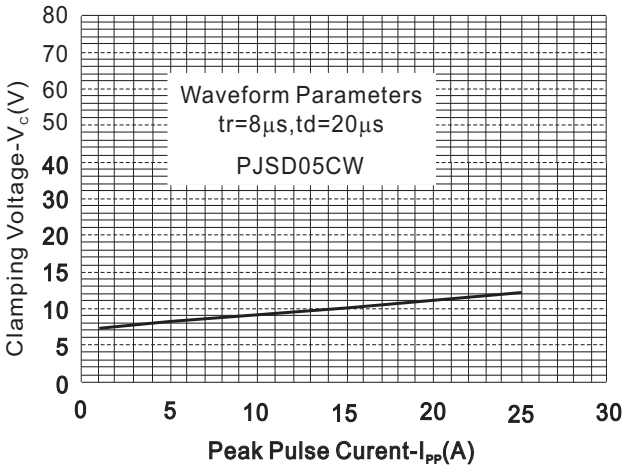


FIG.4 Clamping Voltage vs. Peak Pulse Current

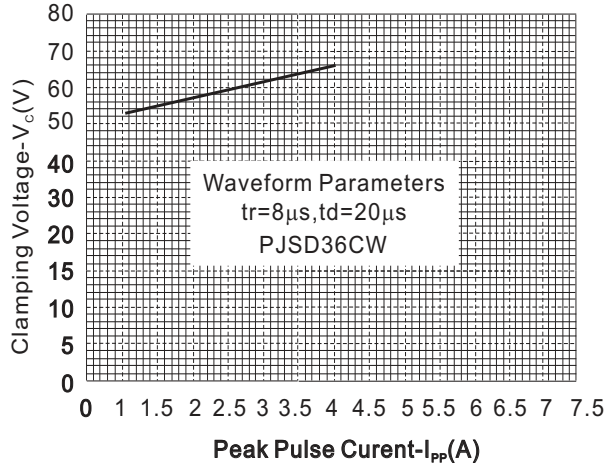
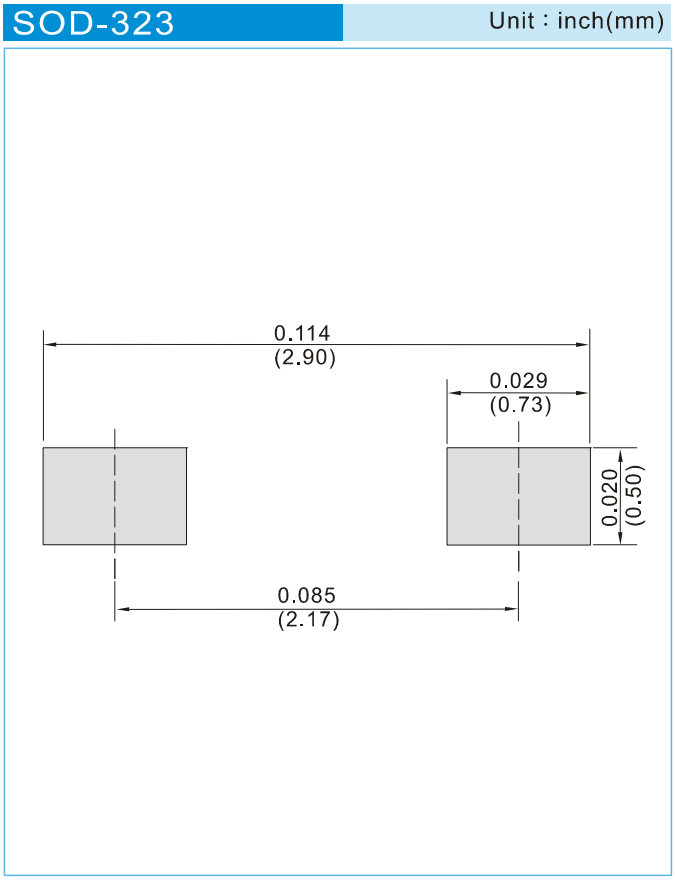


FIG.5 Clamping Voltage vs. Peak Pulse Current

PJSD05CW SERIES

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

PJSD05CW SERIES

Part No_packing code_Version

PJSD05CW_R1_00001

PJSD05CW_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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