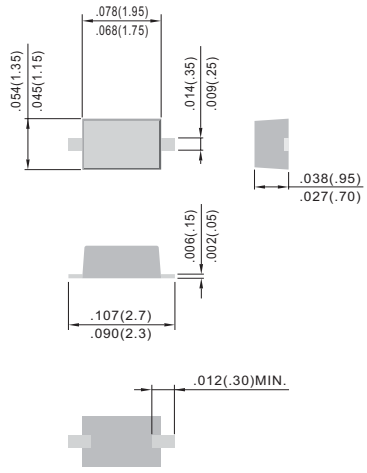
PJSD05CW SERIES

Single Line TVS Diode for ESD Protection in Portable Electronics

VOLTAGE 5 to 36 Volts **POWER** 350 Watts

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 (8/20μs)
- 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
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

Case : SOD-323, Plastic

Terminals : Solderable per MIL-STD-750, Method 2026

Approx. Weight: 0.0041 grams

Marking Code :

PJSD05CW=EZB	PJSD08CW=EZC	PJSD12CW=EZD
PJSD15CW=EZE	PJSD24CW=EZF	PJSD36CW=EZG

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (t_P=8/20 μs)	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

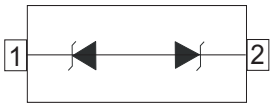


Fig.130

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	µA
Clamping Voltage	V_C	I_{PP}=5A, t_p=8/20µs	-	-	9.8	V
Clamping Voltage	V_C	I_{PP}=24A, t_p=8/20µs	-	-	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	µA
Clamping Voltage	V_C	I_{PP}=5A, t_p=8/20µs	-	-	19	V
Clamping Voltage	V_C	I_{PP}=15A, t_p=8/20µs	-	-	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	µA
Clamping Voltage	V_C	I_{PP}=5A, t_p=8/20µs	-	-	24	V
Clamping Voltage	V_C	I_{PP}=10A, t_p=8/20µs	-	-	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	µA
Clamping Voltage	V_C	I_{PP}=1A, t_p=8/20µs	-	-	36	V
Clamping Voltage	V_C	I_{PP}=4A, t_p=8/20µs	-	-	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	µA
Clamping Voltage	V_C	I_{PP}=1A, t_p=8/20µs	-	-	58	V
Clamping Voltage	V_C	I_{PP}=3A, t_p=8/20µs	-	-	71	V
Junction Capacitance	C_J	V_R=0V, f=1MHz	-	-	45	pF

PJSD05CW SERIES

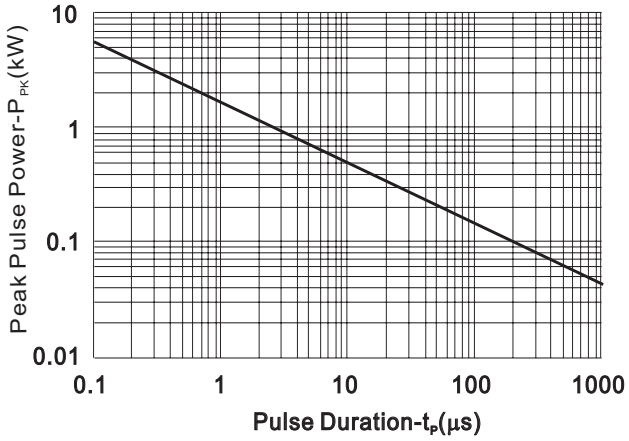


FIG.1 Non-Repetitive Peak Pulse Power vs. Pulse Time

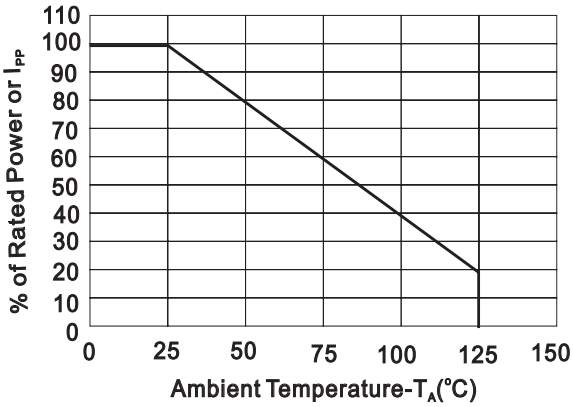


FIG.2 Power Derating Curve

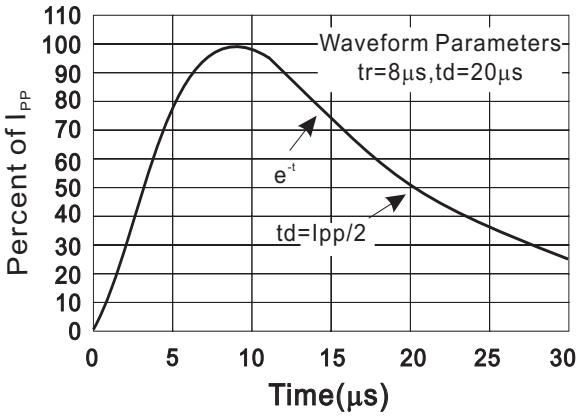


FIG.3 Pulse Waveform

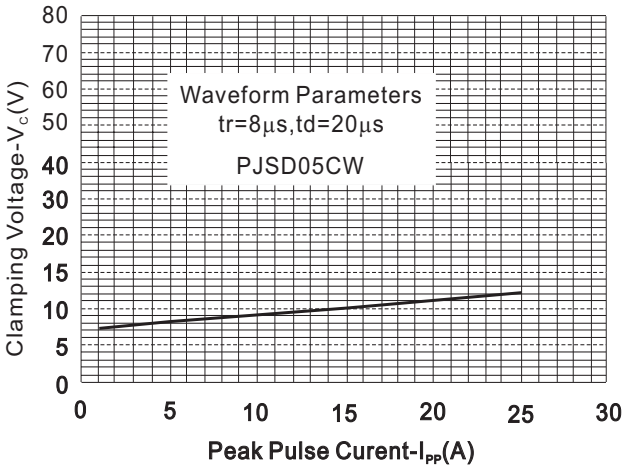


FIG.4 Clamping Voltage vs. Peak Pulse Current

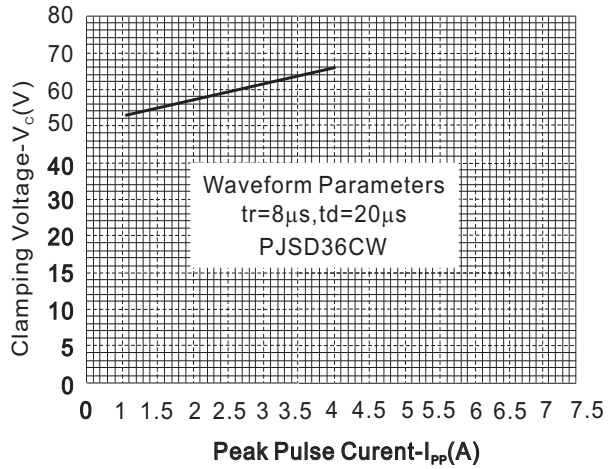
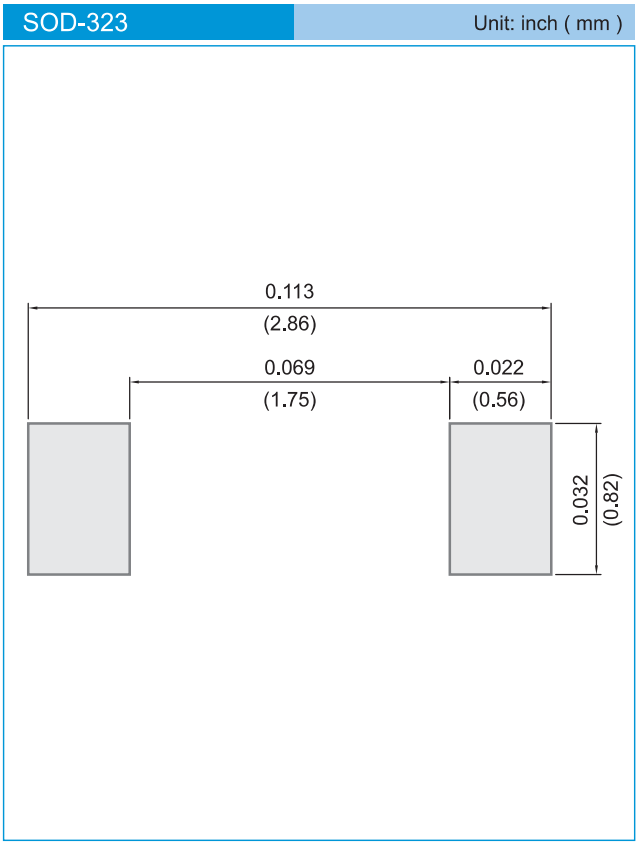


FIG.5 Clamping Voltage vs. Peak Pulse Current

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

LEGAL STATEMENT

Copyright PanJit International, Inc 2009

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.