

PJEC2415VM1WS-AU

ESD Protection

V_{RWM} **24V/15V**

Features

- Bidirectional ESD protection of one line
- IEC61000-4-2(ESD): $\pm 15\text{kV}$ Air, $\pm 8\text{kV}$ Contact Compliance with the capability up to $\pm 30\text{kV}$
- IEC61000-4-4(EFT): $40\text{A}(5/50\text{nS})$
- IEC61000-4-5(Lightning): $3\text{A}(8/20\mu\text{S})$
- Low leakage current, maximum of $0.05\mu\text{A}$ at rated voltage
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

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

Applications

- LIN-bus protection
- Automotive application

SOD-323 Unit : inch(mm)

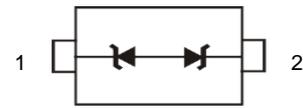
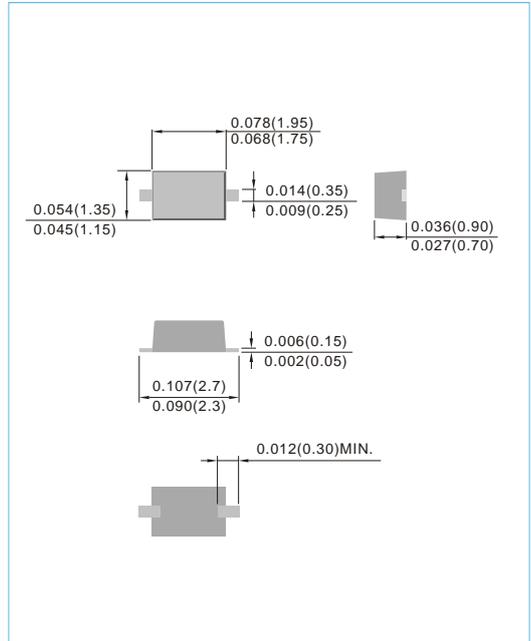


Fig.130(TOP VIEW)



Cathode band 1 (15V)
Pin 2 (24V)

Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Power Dissipation($t_p=8/20\mu\text{s}$)	P_{PP}	160	W
ESD IEC61000-4-2(Air)	V_{ESD}	± 30	kV
ESD IEC61000-4-2(Contact)		± 30	
Operating Junction Temperature	T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

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Electrical Characteristics (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage (24V)	V _{RWM}	-	-	-	24	V
Reverse Stand-Off Voltage (15V)		-	-	-	15	V
Reverse Breakdown Voltage (24V)	V _{BR}	I _{BR} =5mA	25.4	-	30.3	V
Reverse Breakdown Voltage (15V)			17.1	-	20.3	V
Reverse Leakage Current (24V)	I _R	V _R =24V	-	1	50	nA
Reverse Leakage Current (15V)		V _R =15V	-	1	50	
Clamping Voltage (24V)	V _{CL}	I _{PP} =1A, t _P =8/20μs	-	-	40	V
		I _{PP} =3A, t _P =8/20μs	-	-	50	
Clamping Voltage (15V)		I _{PP} =1A, t _P =8/20μs	-	-	25	
		I _{PP} =5A, t _P =8/20μs	-	-	35	
Off State Junction Capacitance	C _J	0Vdc Bias f=1MHz	-	13	17	pF

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TYPICAL CHARACTERISTIC CURVES

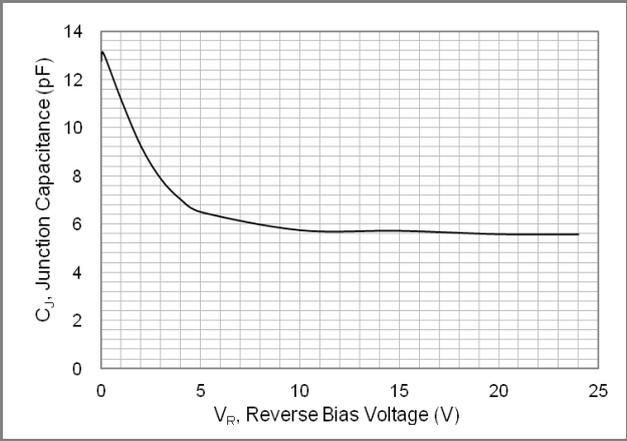


Fig.1 Typical Junction Capacitance(24V)

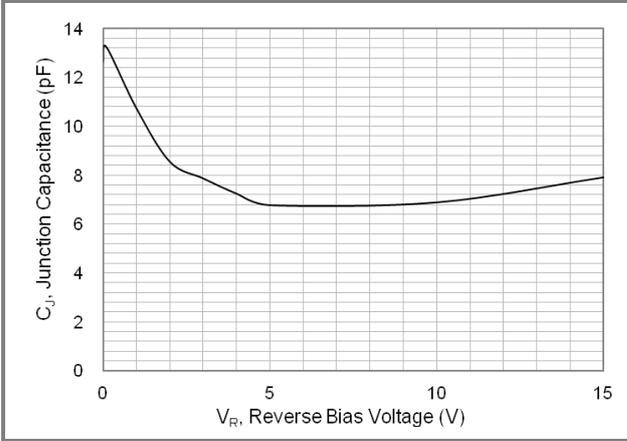


Fig.2 Typical Junction Capacitance(15V)

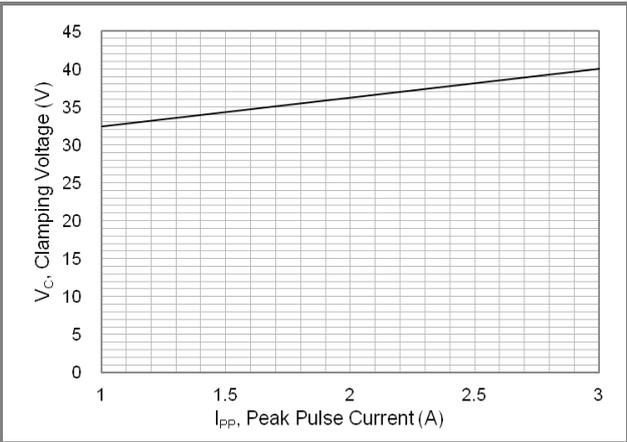


Fig.3 Typical Peak Clamping Voltage(8/20µs)(24V)

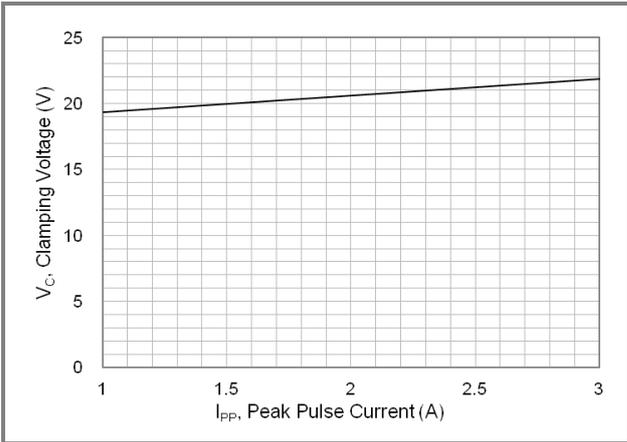


Fig.4 Typical Peak Clamping Voltage(8/20µs)(15V)

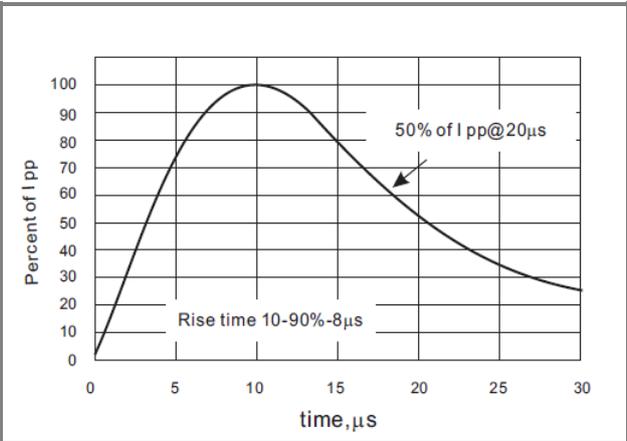


Fig.5 8/20µs Pulse Waveform

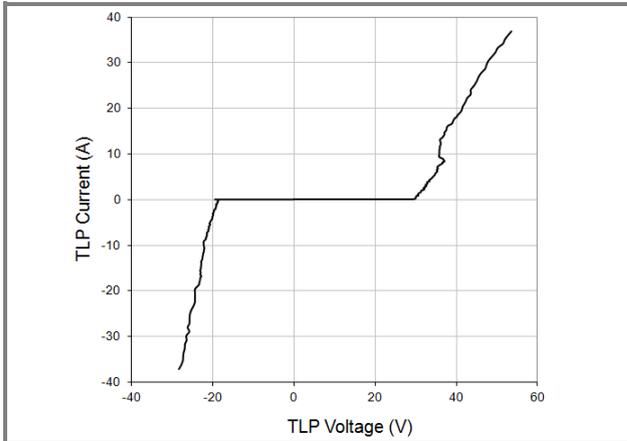


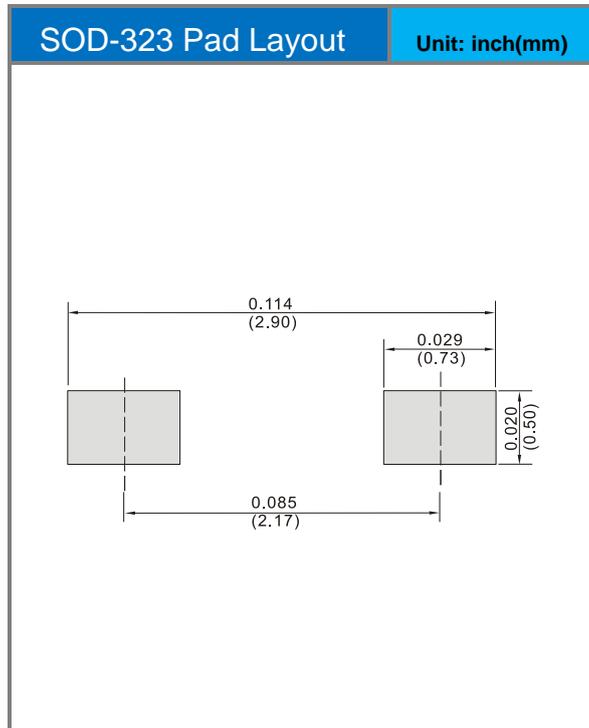
Fig.6 Transmission Line Pulsing (TLP) Measurement

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
PJEC2415VM1WS-AU	SOD-323	5K pcs / 7" reel	VM
PJEC2415VM1WS-AU	SOD-323	12K pcs / 13" reel	VM

Mounting Pad Layout



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