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PJEC2415VM1WS **ESD** Protection **SOD-323** Unit : inch(mm) 24V/15V V_{RWM} Features Bidirectional ESD protection of one line 0.078(1.95) IEC61000-4-2(ESD): ±15kV Air, ±8kV Contact Compliance with 0.014(0.35) 0.054(1.35) the capability up to ±30kV 0.036(0.90) 0.045(1.15) 0.027(0.70) IEC61000-4-4(EFT): 40A(5/50nS) IEC61000-4-5(Lightning): 3A(8/20μS) 0.006(0.15) • Low leakage current, maximum of 0.05μA at rated voltage 0.107(2.7) • Lead free in compliance with EU RoHS 2011/65/EU directive. 0.090(2.3) 0.012(0.30)MIN. 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 2 1 Marking: VM Fig.130(TOP VIEW) Applications LIN-bus protection 2 1 Automotive application Cathode 1 (15V) Cathode 2 (24V) Maximum Ratings (T_A=25°C unless otherwise noted) PARAMETER SYMBOL LIMIT UNITS Peak Pulse Power Dissipation(tp=8/20µs) 160 W P_{PP} ESD IEC61000-4-2(Air) ±30 kV V_{ESD} ESD IEC61000-4-2(Contact) ±30 °C **Operating Junction Temperature** ΤJ -55 to +150 Storage Temperature Range T_{STG} -55 to +150 °C





Electrical Characteristics ($T_A=25^{\circ}C$ unless otherwise noted)

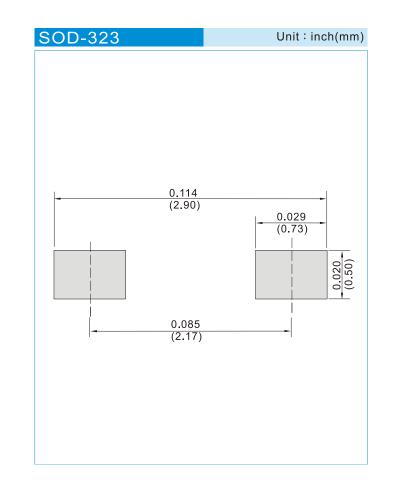
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage (24V)	V _{RWM}	-	-	-	24	V
Reverse Stand-Off Voltage (15V)		-	-	-	15	V
Reverse Breakdown Voltage (24V)	V _{BR}	I _{BR} =5mA	25.4	-	30.3	V
Reverse Breakdown Voltage (15V)			17.1	-	20.3	V
Reverse Leakage Current (24V)	I _R	V _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	CJ	0Vdc Bias f=1MHz	-	13	17	pF



PJEC2415VM1WS **TYPICAL CHARACTERISTIC CURVES** C_J, Junction Capacitance (pF) 7 b 9 8 01 71 CJ, Junction Capacitance (pF) V_R, Reverse Bias Voltage (V) V_R, Reverse Bias Voltage (V) Fig.1 Typical Junction Capacitance(24V) Fig.2 Typical Junction Capacitance(15V) Clamping Voltage (V) V_c, Clamping Voltage (V) 1 01 10 00 1 02 00 Š 1.5 2.5 2.5 1.5 I_{PP}, Peak Pulse Current (A) IPP, Peak Pulse Current (A) Fig.3 Typical Peak Clamping Voltage(8/20µs)(24V) Fig.4 Typical Peak Clamping Voltage(8/20µs)(15V) 50% of I pp@20μs TLP Current (A) Percent of I pp -10 -20 Rise time 10-90%-8µs -30 -40 -40 -20 time, µs TLP Voltage (V) Fig.5 8/20µs Pulse Waveform Fig.6 Transmission Line Pulsing (TLP) Measurement



MOUNTING PAD LAYOUT



ORDER INFORMATION

Packing information
 T/R – 12K per 13" plastic Reel
 T/R – 5K per 7" plastic Reel





Part No_packing code_Version

PJEC2415VM1WS_R1_00001 PJEC2415VM1WS_R2_00001

For example :

RB500V-40_R2_00001

Serial number

Part No.

Version code means HF
Packing size code means 13"

art no.

- Packing type means T/R

Packing Code XX					Version Code XXXXX		
Packing type	1 st Code	Packing size code		HF or RoHS	1 st Code	2 nd ~5 th Code	
Tape and Ammunition Box (T/B)	Α	N/A	0	HF	0	serial number	
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number	
Bulk Packing (B/P)	В	13"	2				
Tube Packing (T/P)	т	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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