



PJE24HWS SERIES

SINGLE LINE TVS DIODE FOR ESD PROTECTION PORTABLE ELECTRONICS

VOLTAGE 24~48 Volt **IPP** 8.5~14 Ampere

SOD-323

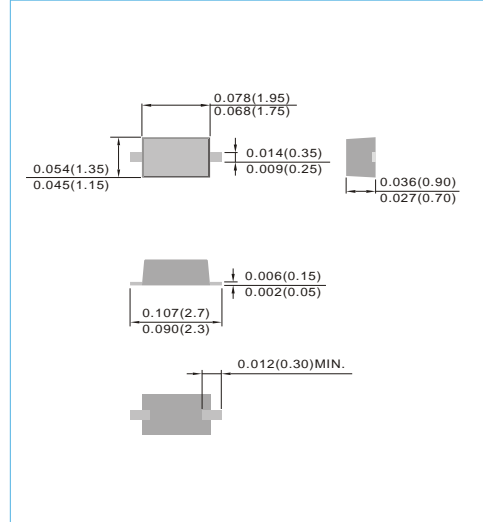
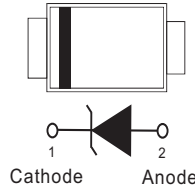
Unit : inch(mm)

FEATURES

- Small package for use in portable electronics
- Suitable replacement for MLV'S in ESD protection applications
- Low clamping voltage and leakage current
- High surge capability
- 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, Molded plastic over passivated junction
- Terminals : Solderable per MIL-STD-750,Method 2026
- Approx Weight : 0.00014 ounces, 0.0041 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating	Symbol	Value	Units
Operating Temperature And Storage Temperature	T_J, T_{STG}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS ($T_J=25^\circ\text{C}$)

PJE24HWS Marking QM

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage (Notes 4)	V_{RRM}	-	-	-	24	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1\text{mA}$	26	-	30	V
Reverse Leakage Current	I_R	$V_R=24\text{V}$	-	-	1	μA
ESD Voltage (Air, Contact Mode)	V_{ESD}	-	-	-	30(Contact) 30(Air)	kV
Clamping Voltage ($t_p=8/20\mu\text{s}$) (Notes 1,2,3)	V_C	$I_{pp}=14\text{A}$	-	-	45	V
Off State Junction Capacitance	C_J	0Vdc Bias, $f=1\text{MHz}$	-	-	100	pF

NOTES :

1. Non-repetitive current pulse.
2. Mounted on copper pads to each terminal.
3. Peak pulse power waveform is $t_p=8/20\mu\text{s}$.
4. A transient suppressor is selected according to the working peak reverse voltage (V_{RRM}), which should be equal to or greater than the DC or continuous peak operating voltage level.



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PJE36HWS Marking JE4

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage (Notes 4)	V_{RRM}	-	-	-	36	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1mA$	40	-	44.2	V
Reverse Leakage Current	I_R	$V_R=36V$	-	-	1	μA
ESD Voltage (Air, Contact Mode)	V_{ESD}	-			30(Contact) 30(Air)	kV
Clamping Voltage ($t_p=8/20\mu s$) (Notes 1,2,3)	V_C	$I_{PP}=8.5A$	-	-	70	V
Off State Junction Capacitance	C_J	0Vdc Bias, $f=1MHz$	-	-	75	pF

PJE48HWS Marking JE3

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage (Notes 4)	V_{RRM}	-	-	-	48	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1mA$	53.3	-	58.9	V
Reverse Leakage Current	I_R	$V_R=48V$	-	-	1	μA
ESD Voltage (Air, Contact Mode)	V_{ESD}	-			30(Contact) 30(Air)	kV
Clamping Voltage ($t_p=8/20\mu s$) (Notes 1,2,3)	V_C	$I_{PP}=6.5A$	-	-	80	V
Off State Junction Capacitance	C_J	0Vdc Bias, $f=1MHz$	-	-	60	pF

NOTES :

1. Non-repetitive current pulse.
2. Mounted on copper pads to each terminal.
3. Peak pulse power waveform is $t_p=8/20\mu s$.
4. A transient suppressor is selected according to the working peak reverse voltage (V_{RRM}), which should be equal to or greater than the DC or continuous peak operating voltage level.



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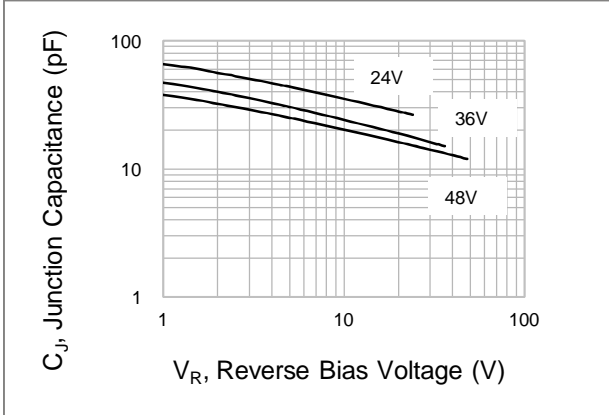


Fig.1 Typical Junction Capacitance

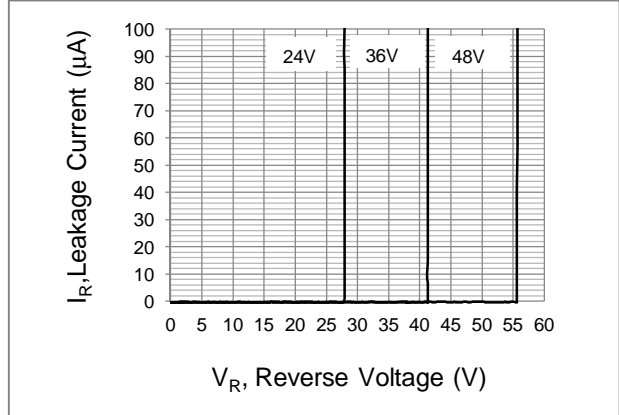


Fig.2 Typical Reverse Characteristics

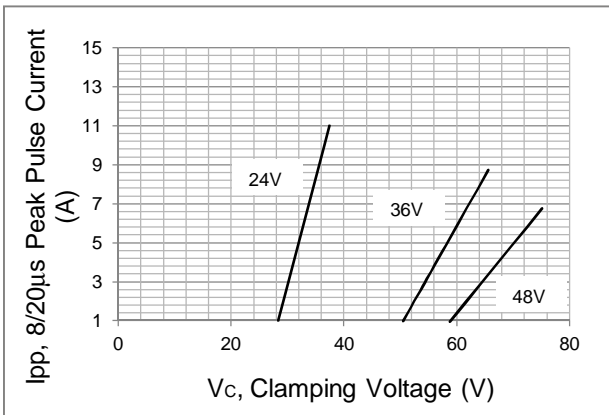


Fig.3 Typical Peak Clamping Voltage

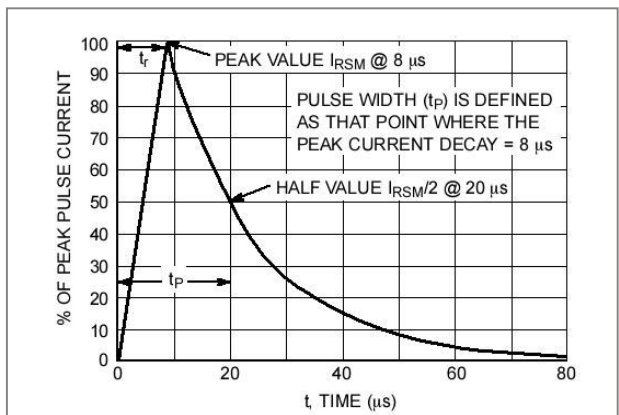
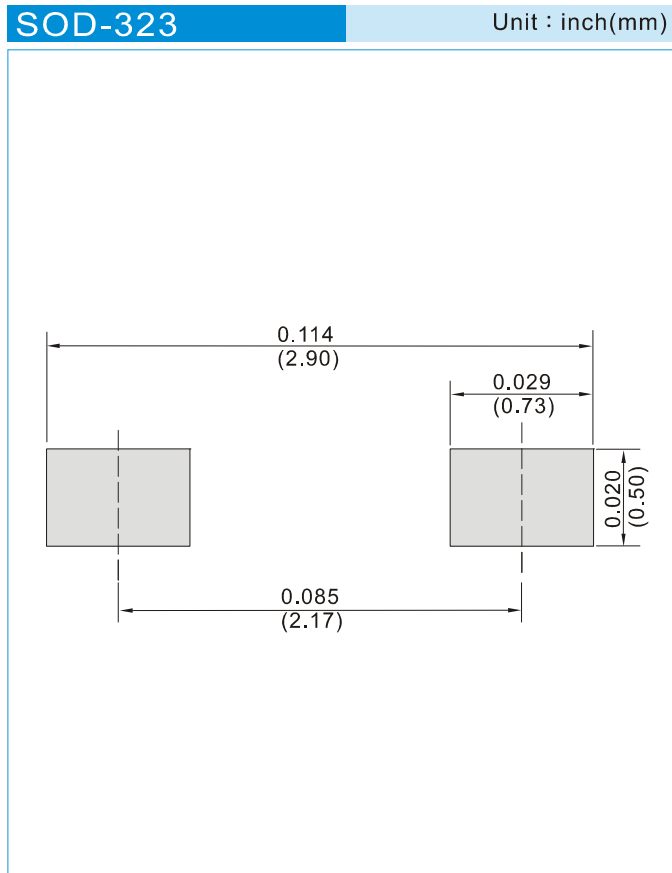


Fig.4 8/20 μ S Peak Pulse Current Waveform



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MOUNTING PAD LAYOUT



ORDER INFORMATION

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



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Part No_packing code_Version

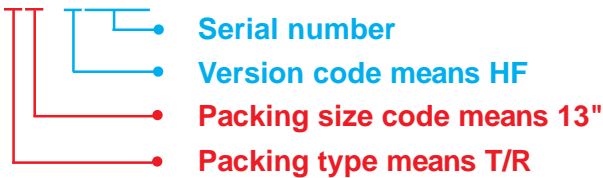
PJE24HWS_R1_00001

PJE24HWS_R2_00001

For example :

RB500V-40_R2_00001

Part No.



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th 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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