



# PJE28VM2TS

## ESD Protection

$V_{RWM}$

**28 V**

## Features

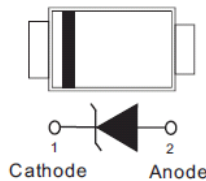
- ESD protection of one line
- IEC61000-4-2(ESD):  $\pm 20$ kV Air,  $\pm 15$ kV Contact Compliance
- IEC61000-4-4(EFT): 40A(5/50nS)
- IEC61000-4-5(Lightning): 3A(8/20 $\mu$ S)
- Low leakage current, maximum of 0.5 $\mu$ A at rated voltage
- Lead free in compliance with EU RoHS 2011/65/EU directive.
- Green molding compound as per IEC61249 Std.  
(Halogen Free)

## Mechanical Data

- Case: SOD-523, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00005 ounces, 0.0014 grams
- Marking: VM

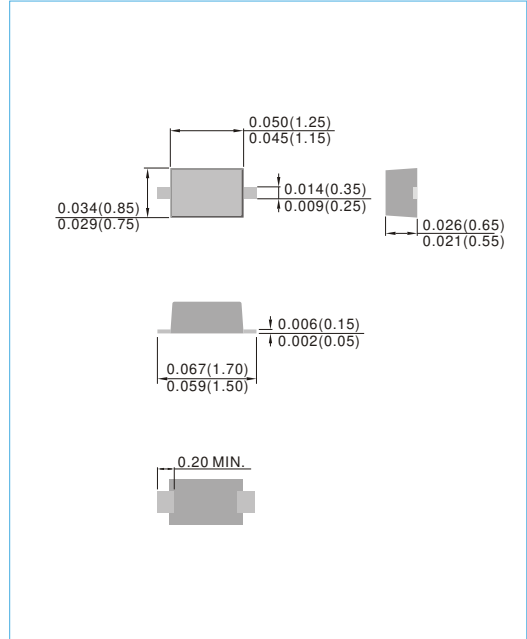
## Applications

- LED Backlight
- Mobile Phones and accessories
- Desktops, Servers and Notebook
- Hand held portable
- Computer Interfaces Protection
- Serial and Parallel Ports Protection
- Control Signal Lines Protection



## SOD-523

Unit : inch(mm)



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

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Power Dissipation( $t_p=8/20\mu\text{S}$ )	$P_{PP}$	165	W
ESD IEC61000-4-2(Air)	$V_{ESD}$	$\pm 20$	kV
ESD IEC61000-4-2(Contact)		$\pm 15$	
Operating Junction Temperature Range	$T_J$	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^{\circ}\text{C}$



## PJE28VM2TS

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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage <sup>(NOTE1)</sup>	$V_{RWM}$	-	-	-	28	V
Reverse Breakdown Voltage	$V_{BR}$	$I_{BR}=1\text{mA}$	29	-	35	V
Reverse leakage current	$I_R$	$V_R=28\text{V}$	-	-	0.5	$\mu\text{A}$
Clamping Voltage	$V_{CL}$	$I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$	-	38	45	V
		$I_{PP}=3\text{A}, t_p=8/20\mu\text{s}$	-	48	55	
Dynamic Resistance <sup>(NOTE2)</sup>	$R_D$	$t_p=8/20\mu\text{s}$	-	5	-	$\Omega$
Off State Junction Capacitance	$C_J$	0Vdc Bias $f=1\text{MHz}$	-	-	25	pF

**NOTE :**

- 1.A transient suppressor is selected according to the working peak reverse voltage( $V_{RWM}$ ), which should be equal to or greater than the DC or continuous peak operation voltage level.
- 2.Dynamic resistance calculated form  $I_{PP}=1\text{A}$  to  $I_{PP}=3\text{A}$ .



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## TYPICAL CHARACTERISTIC CURVES

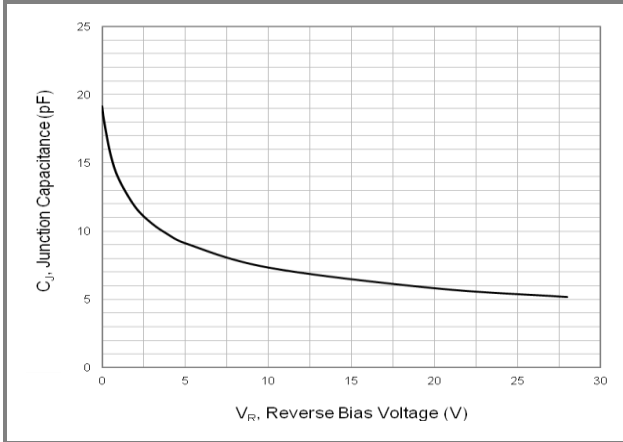


Fig.1 Typical Junction Capacitance

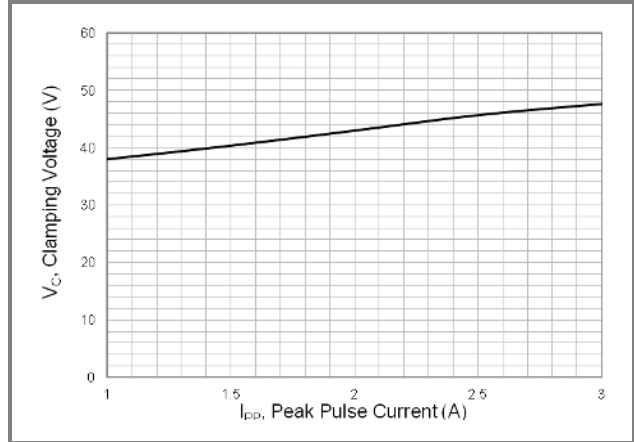


Fig.2 Typical Peak Clamping Voltage(8/20 $\mu$ s)

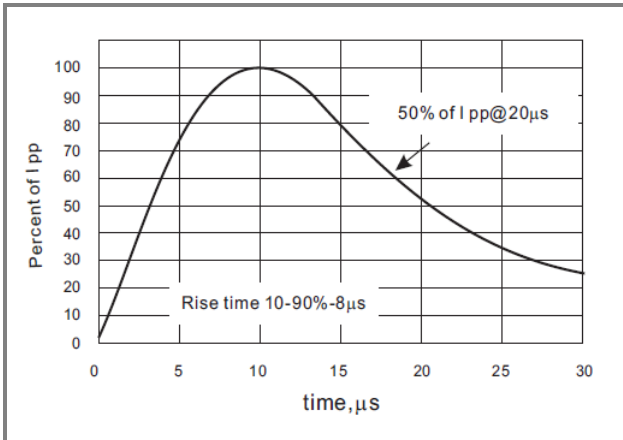


Fig.3 8/20 $\mu$ s Pulse Waveform

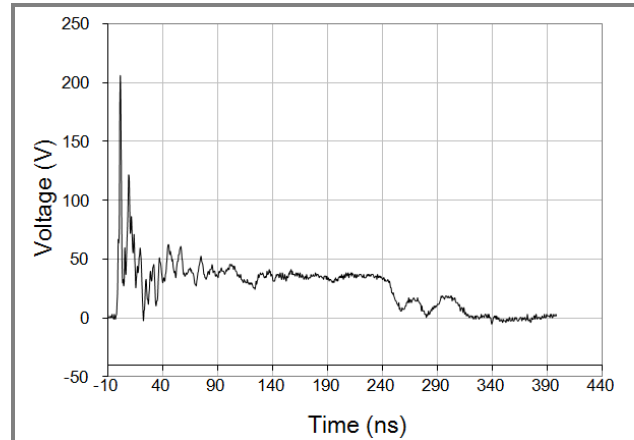


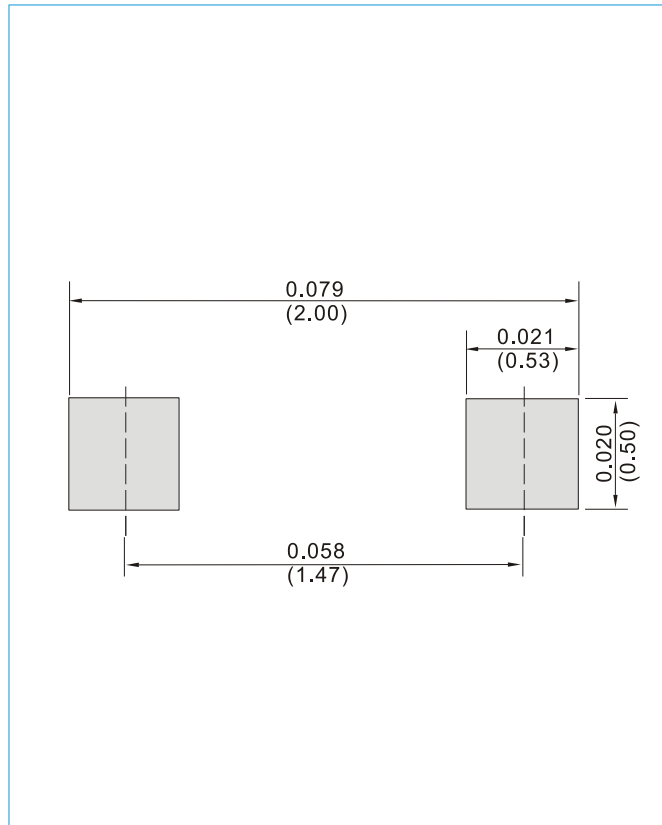
Fig.4 ESD Clamping (+8kV Contact per IEC61000-4-2)



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## MOUNTING PAD LAYOUT

SOD-523 Unit : inch(mm)



## ORDER INFORMATION

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



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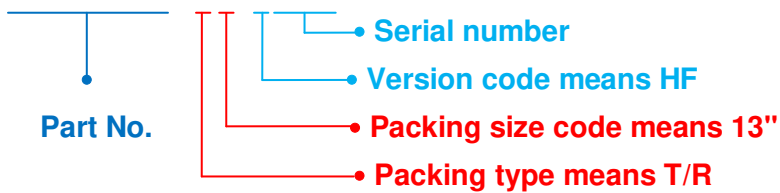
**Part No\_packing code\_Version**

PJE28VM2TS\_R1\_00001

PJE28VM2TS\_R2\_00001

**For example :**

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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