



PJEC5V0M1TA

Low Capacitance TVS/ESD Protection

V_{RWM}

5 V

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): $3.5\text{A}(8/20\mu\text{S})$
- Low leakage current, maximum of $0.1\mu\text{A}$ 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: SOT-23, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0003 ounces, 0.008 grams
- Marking: M1A

Applications

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

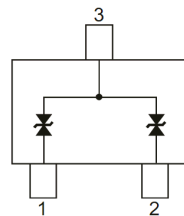
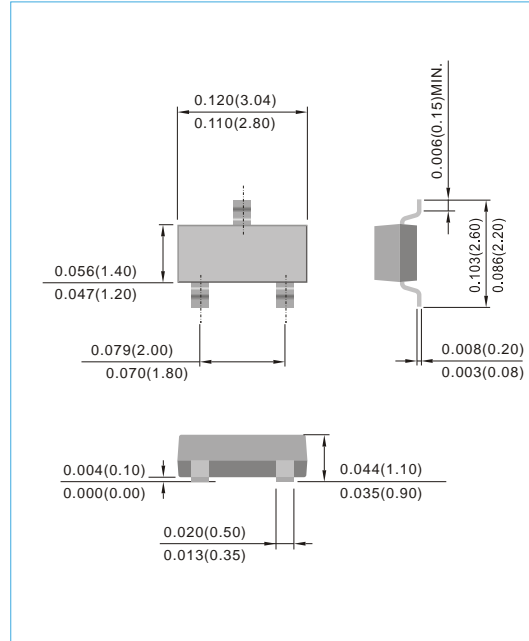


Fig.170(Top View)

SOT-23

Unit : inch(mm)



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

PARAMETER	SYMBOL	LIMIT	UNITS
ESD IEC61000-4-2(Air)	V_{ESD}	± 30	kV
ESD IEC61000-4-2(Contact)		± 30	
Operating Junction Temperature	T_J	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$



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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	5	V
Snap-Break Voltage	V_{SB}	$I_{SB}=50\text{mA}$	5	-	8	V
Reverse Leakage Current	I_R	$V_R=5.0\text{V}$	-	-	0.1	μA
Clamping Voltage	V_{CL}	$I_{PP}=1\text{A}$, $t_P=8/20\mu\text{s}$	-	-	9	V
		$I_{PP}=3.5\text{A}$, $t_P=8/20\mu\text{s}$	-	-	12.5	
Clamping Voltage TLP (Note 1)	V_{CL}	$I_{PP}=4\text{A}$, $t_P=100\text{ns}$	-	8.6	-	V
		$I_{PP}=8\text{A}$, $t_P=100\text{ns}$	-	9.7	-	
Dynamic Resistance	R_{DYN}	$t_P=100\text{ns}$	-	0.27	-	Ω
Off State Junction Capacitance	C_J	0Vdc Bias $f=1\text{MHz}$	-	-	10	pF

NOTES :

1. Testing using Transmission Line Pulse (TLP) conditions: $Z_0 = 50\Omega$, $t_P = 100\text{ ns}$.



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TYPICAL CHARACTERISTIC CURVES

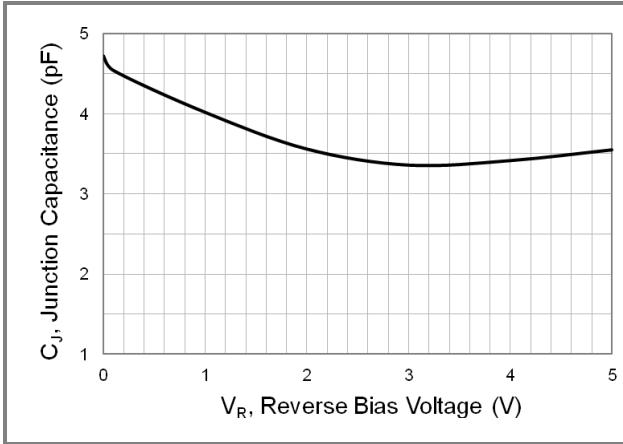


Fig.1 Typical Junction Capacitance

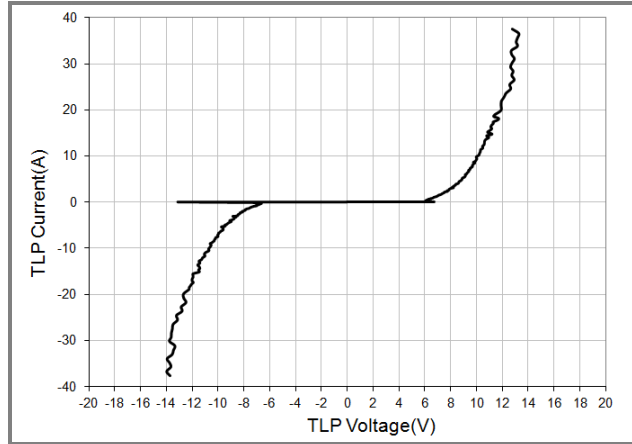


Fig.2 Transmission Line Pulsing (TLP) Measurement

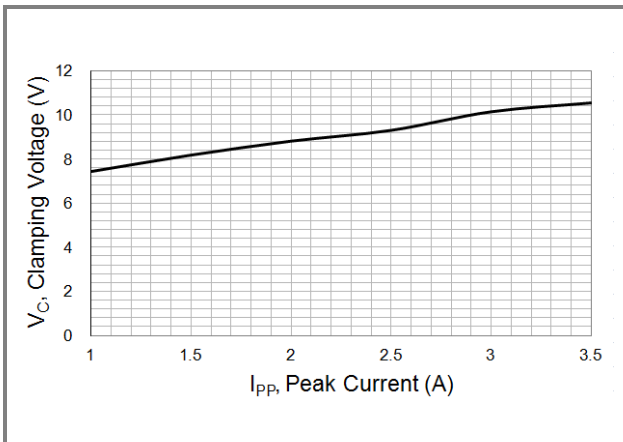


Fig.3 Typical Peak Clamping Voltage(8/20 μ s)

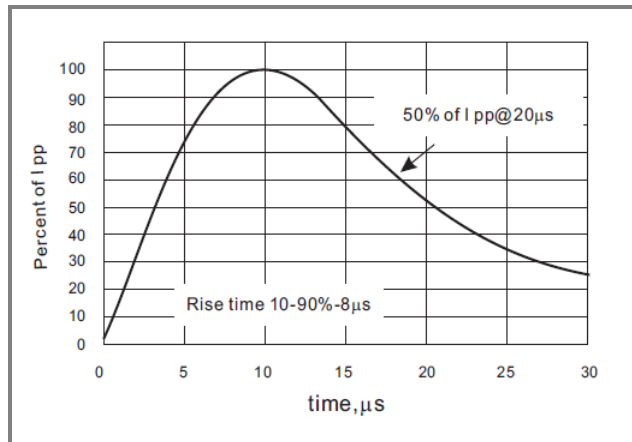


Fig.4 8/20 μ s Pulse Waveform

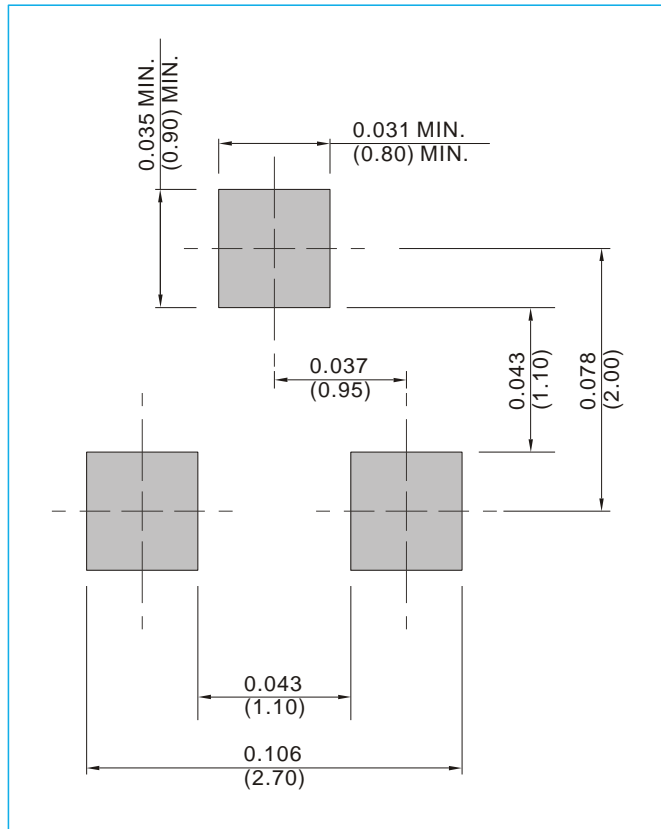


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MOUNTING PAD LAYOUT

SOT-23

Unit : inch(mm)



ORDER INFORMATION

Packing information

T/R – 3K per 7" plastic Reel

T/R – 12K per 13" plastic Reel



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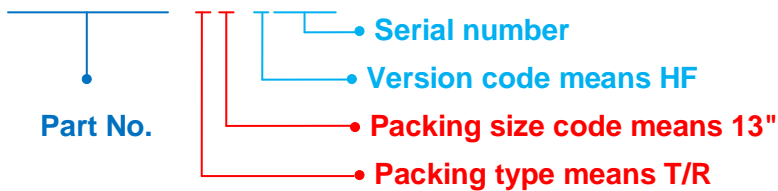
Part No_packing code_Version

PJEC5V0M1TA_R1_00001

PJEC5V0M1TA_R2_00001

For example :

RB500V-40_R2_00001



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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