

# PJE5V0U8TB6

## Low Capacitance ESD Protection

**V<sub>RWM</sub>**

**5 V**

### Features

- IEC61000-4-2(ESD): ±17kV Air, ±12kV Contact Compliance
- IEC61000-4-4(EFT): 40A(5/50nS)
- IEC61000-4-5(Lightning): 5A(8/20μS)
- Low leakage current, maximum 1μA 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-563, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0001 ounces, 0.0026 grams

### Applications

- USB2.0 Data Line and Power Line Protection
- Video Graphics Cards
- Monitors and Flat Panel Displays Notebook computers
- Digital Video Interface(DVI)
- 10/100/1000 Ethernet
- ATM Interfaces
- Control Signal Lines Protection

### SOT-563

Unit : inch(mm)

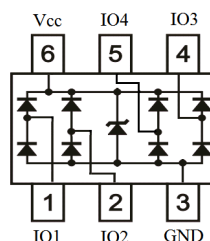
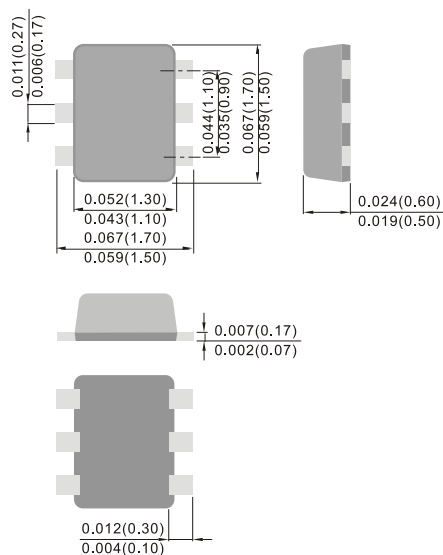


Fig.204(Top View)

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

PARAMETER	SYMBOL	LIMIT	UNITS
ESD IEC61000-4-2(Air)	$V_{\text{ESD}}$	±17	kV
ESD IEC61000-4-2(Contact)		±12	
Operating Junction Temperature	$T_J$	-55 to +150	°C
Storage Temperature Range	$T_{\text{STG}}$	-55 to +150	°C



## PJE5V0U8TB6

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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage <sup>(Note 1)</sup>	$V_{RWM}$	-	-	-	5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_{BR}=1\text{mA}$ , PIN 6 to GND	6	-	10	V
Reverse leakage current	$I_R$	$V_R=5\text{V}$ , I/O to GND	-	-	1	$\mu\text{A}$
Clamping Voltage	$V_{CL}$	$I_{PP}=1\text{A}$ , $t_P=8/20\mu\text{s}$ , any I/O pin to GND	-	-	15	V
		$I_{PP}=5\text{A}$ , $t_P=8/20\mu\text{s}$ , any I/O pin to GND	-	-	35	
Off State Junction Capacitance	$C_J$	0Vdc Bias $f=1\text{MHz}$ , Between any I/O pins to GND	-	-	0.8	pF
		0Vdc Bias $f=1\text{MHz}$ , Between any I/O pins	-	-	0.4	

NOTES :

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.



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### TYPICAL CHARACTERISTIC CURVES

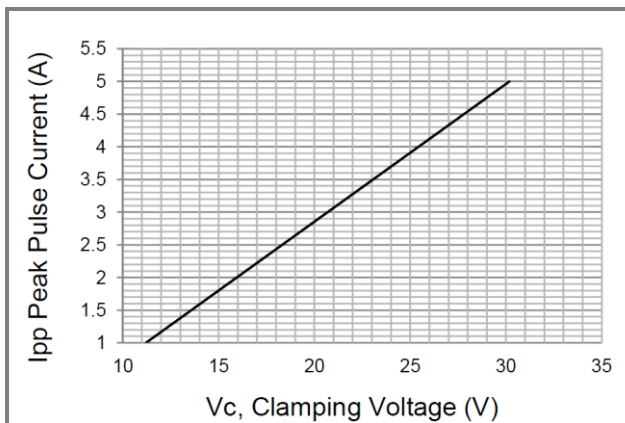


Fig.1 Typical Peak Clamping Voltage(8/20 $\mu$ s)

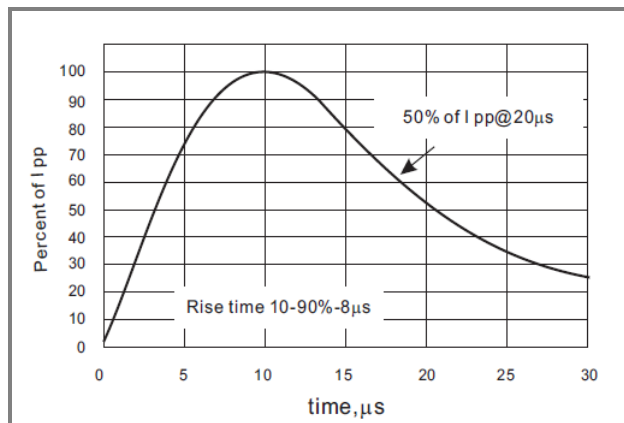


Fig.2 8/20 $\mu$ s Pulse Waveform



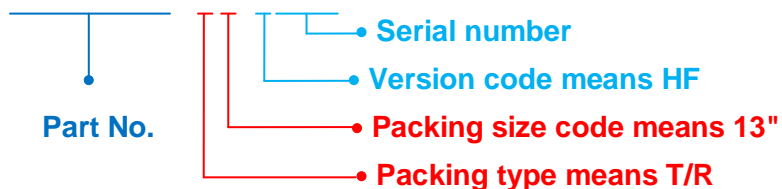
## PJE5V0U8TB6

### PART NO PACKING CODE VERSION

Part No Packing Code	Package Type	Packing Type	Marking	Version
PJE5V0U8TB6_R1_00001	SOT-563	4K pcs / 7" reel	U8	Halogen free
PJE5V0U8TB6_R2_00001	SOT-563	10K pcs / 13" reel	U8	Halogen free
PJE5V0U8TB6_R1_00002	SOT-563	8K pcs / 7" reel	U8	Halogen free
PJE5V0U8TB6_R1_00002	SOT-563	20K pcs / 13" reel	U8	Halogen free

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>			

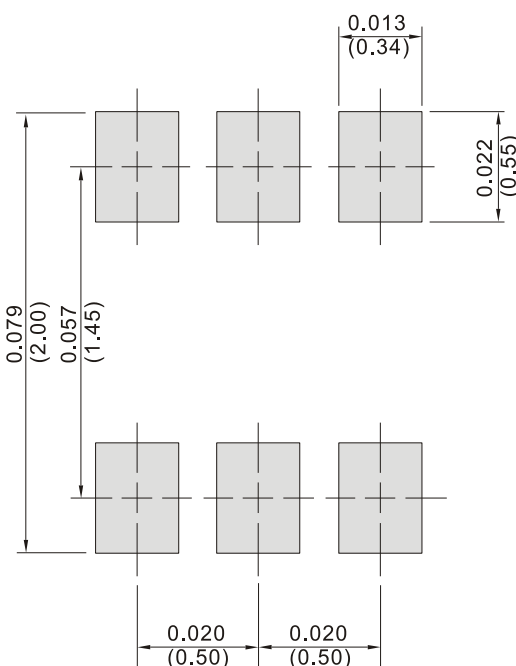


# PJE5V0U8TB6

## MOUNTING PAD LAYOUT

SOT-563

Unit : inch(mm)





## **PJE5V0U8TB6**

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