



# Low Capacitance ESD Protection

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

5 V

#### **Features**

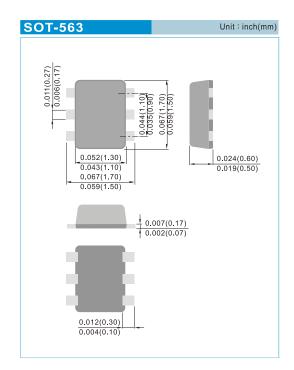
- IEC61000-4-2(ESD): ±17kV Air, ±12kV Contact Compliance
- IEC61000-4-4(EFT): 40A(5/50nS)
- IEC61000-4-5(Lightning): 5A(8/20μS)
- Low leakage current, maximum 1μA at rated voltage
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

#### Mechanical Data

- Case: SOT-563, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 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



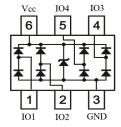


Fig.204(Top View)

### Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS	
ESD IEC61000-4-2(Air)		±17	kV	
ESD IEC61000-4-2(Contact)	V <sub>ESD</sub>	±12		
Operating Junction Temperature	ΤJ	-55 to +150	°C	
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	Ô	





### Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS	
Reverse Stand-Off Voltage (Note 1)	V <sub>RWM</sub> -		-	-	5	V	
Reverse Breakdown Voltage	V <sub>BR</sub> I <sub>BR</sub> =1mA, PIN 6 to GND		6	-	10	V	
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =5V, I/O to GND	-	-	1	μА	
Clamping Voltage	VcL	I <sub>PP</sub> =1A, t <sub>P</sub> =8/20μs, any I/O pin to GND	-	-	15		
		I <sub>PP</sub> =5A, t <sub>P</sub> =8/20μs, any I/O pin to GND			35	V	
Off State Junction Capacitance	CJ	0Vdc Bias f=1MHz, Between any I/O pins to GND	-	-	0.8	pF	
		0Vdc Bias f=1MHz, Between any I/O pins	-	-	0.4		

#### NOTES:

1. A transient suppressor is selected according to the working peak reverse voltage(V<sub>RWM</sub>), Which should be equal to or greater than the DC or continuous peak operation voltage level.





### TYPICAL CHARACTERISTIC CURVES

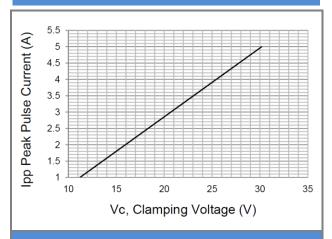


Fig.1 Typical Peak Clamping Voltage(8/20μs)

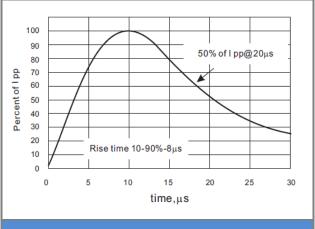


Fig.2 8/20µs Pulse Waveform

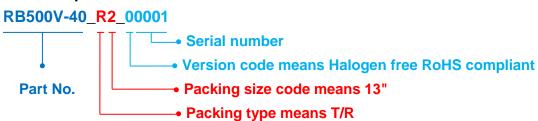




#### PART NO. PACKING CODE VERSION

Part No. Packing Code	Package Type	Packing Type	Marking	Version
PJE5V0U8TB6_R1_00001	SOT-563	4K pcs / 7" reel	U8	Halogen free RoHS compliant
PJE5V0U8TB6_R2_00001	SOT-563	10K pcs / 13" reel	U8	Halogen free RoHS compliant
PJE5V0U8TB6_R1_00002	SOT-563	8K pcs / 7" reel	U8	Halogen free RoHS compliant
PJE5V0U8TB6_R2_00002	SOT-563	20K pcs / 13" reel	U8	Halogen free RoHS compliant

### For example:

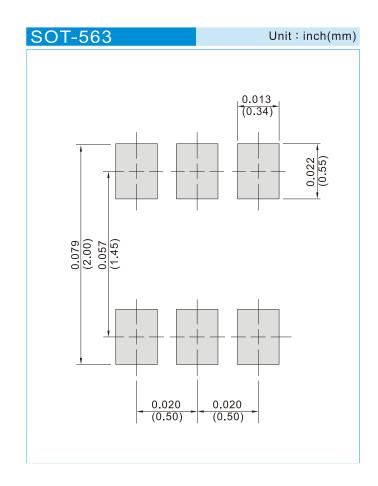


Packing Code XX			Version Code X		Serial number XXXX	
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HSF Level	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	Α	N/A	0	Halogen free RoHS compliant	0	serial number
Tape and Reel (T/R)	R	7"	1 RoHS compliant		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			





### **MOUNTING PAD LAYOUT**







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