



# PJE5V0V1DW

## Very Low Capacitance ESD Protection

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

**5 V**

### Features

- Bidirectional ESD protection of one line
- IEC61000-4-2(ESD): ±15kV Air, ±8kV Contact
- IEC61000-4-4(EFT): 40A(5/50nS)
- IEC61000-4-5(Lightning): 3A(8/20μS)
- Low leakage current, maximum of 0.1μA 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-363, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0002 ounces, 0.006 grams
- Marking: K6E

### Applications

- USB2.0 Data Line & 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-363**

Unit : inch(mm)

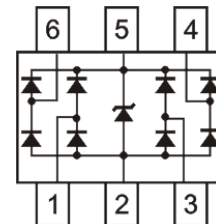
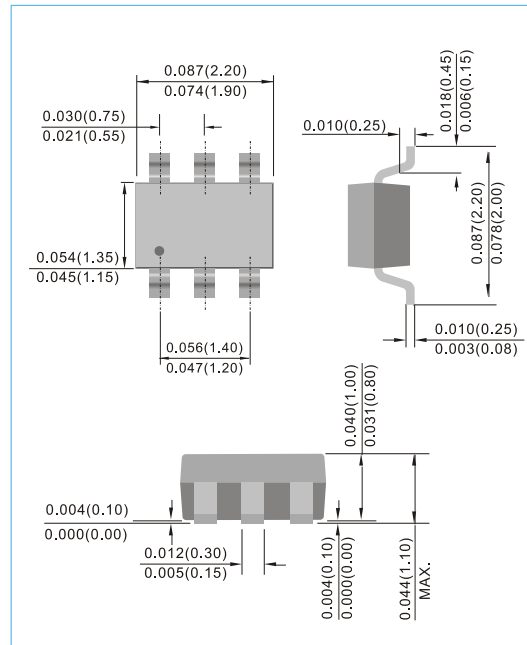


Fig.174(Top View)

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

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Current(8/20μs)	I <sub>PP</sub>	3	A
ESD IEC61000-4-2(Air)	V <sub>ESD</sub>	±15	kV
ESD IEC61000-4-2(Contact)		±8	
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C



## PJE5V0V1DW

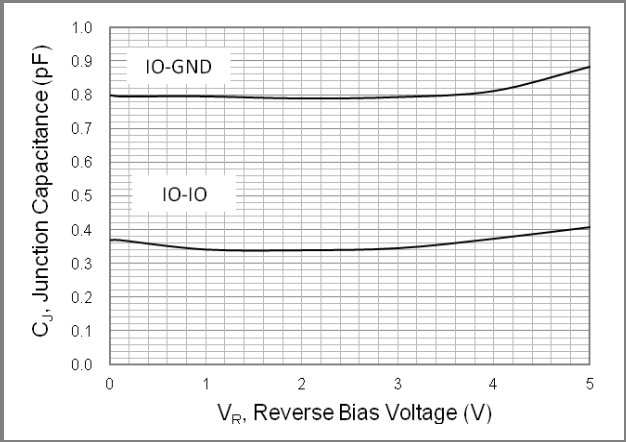
Electrical Characteristics ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage	$V_{RWM}$	-	-	-	5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_{BR}=1\text{mA}$ , PIN 5 to GND	6	-	8.5	V
Reverse leakage current	$I_R$	$V_R=5\text{V}$ , PIN 5 to GND	-	-	0.1	$\mu\text{A}$
Clamping Voltage	$V_{CL}$	$I_{PP}=1\text{A}$ , $t_P=8/20\mu\text{s}$	-	9	12	V
		$I_{PP}=3\text{A}$ , $t_P=8/20\mu\text{s}$	-	12	20	
Off State Junction Capacitance	$C_J$	0Vdc Bias $f=1\text{MHz}$ , Between any I/O pins to GND	-	0.8	1	pF
		0Vdc Bias $f=1\text{MHz}$ , Between any I/O pins	-	0.4	-	

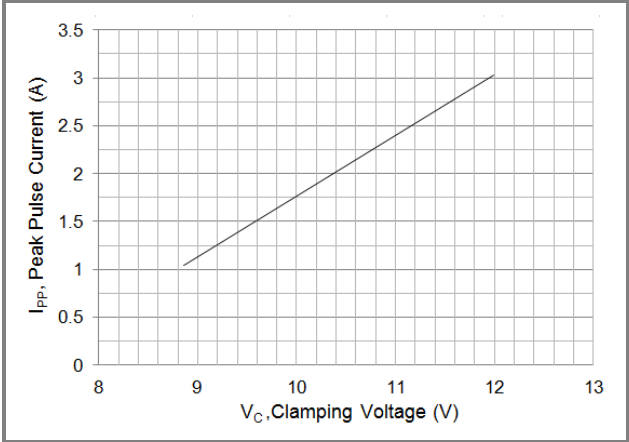


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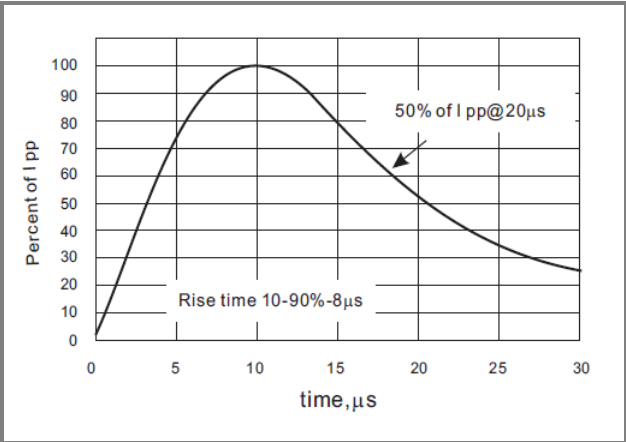
## TYPICAL CHARACTERISTIC CURVES



**Fig.1 Typical Junction Capacitance**



**Fig.2 Typical Peak Clamping Voltage(8/20μs)**

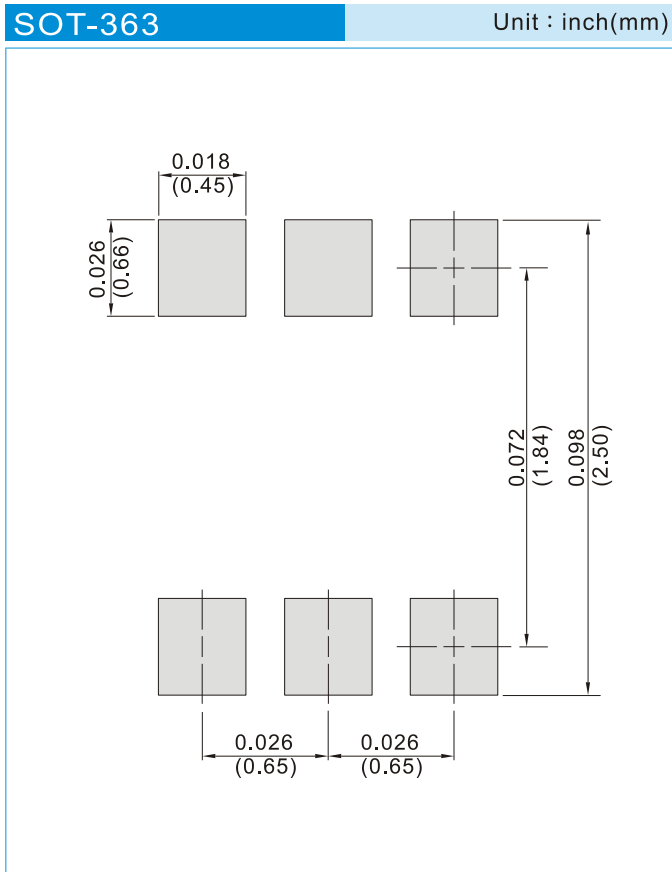


**Fig.3 8/20μs Pulse Waveform**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R – 10K per 13" plastic Reel  
T/R – 3K per 7" plastic Reel



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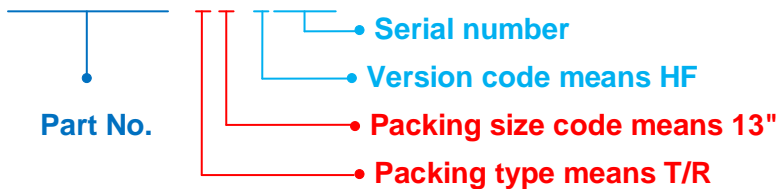
## Part No\_packing code\_Version

PJE5V0V1DW\_R1\_00001

PJE5V0V1DW\_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)	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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