

# PE1805C4C5

## Ultra Low Capacitance ESD Protection

**Voltage**

**5 V**

### Features

- IEC61000-4-2(ESD):  $\pm 17\text{kV}$  Air,  $\pm 12\text{kV}$  Contact Compliance
- IEC61000-4-4(EFT):  $40\text{A}(5/50\text{nS})$
- IEC61000-4-5(Lightning):  $5\text{A}(8/20\mu\text{S})$
- Low leakage current, maximum  $1\mu\text{A}$  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: SOT353, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0002 ounces, 0.006 grams

### Applications

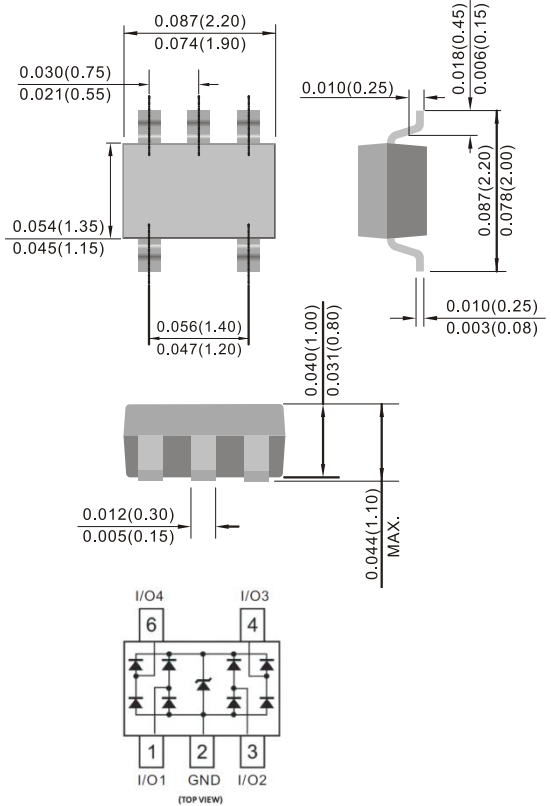
- USB2.0 Data Line Protection
- Video Graphics Cards
- Monitors and Flat Panel Displays Notebook computers
- Digital Video Interface(DVI)
- 10/100/1000 Ethernet
- ATM Interfaces
- Control Signal Lines Protection

### Maximum Ratings

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

**SOT-353**

**Unit: inch(mm)**





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### Electrical Characteristics

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage <sup>(Note 1)</sup>	$V_{RWM}$	-	-	-	5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_{BR}=1mA$	6	-	9	V
Reverse Leakage Current	$I_R$	$V_R=5.0V$	-	-	1	$\mu A$
Clamping Voltage	$V_{CL}$	$I_{PP}=1A$ , $t_P=8/20\mu s$ , any I/O pin to GND	-	-	15	V
		$I_{PP}=5A$ , $t_P=8/20\mu s$ any I/O pin to GND	-	-	28	V
Off State Junction Capacitance	$C_J$	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	

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.

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### TYPICAL CHARACTERISTIC CURVES

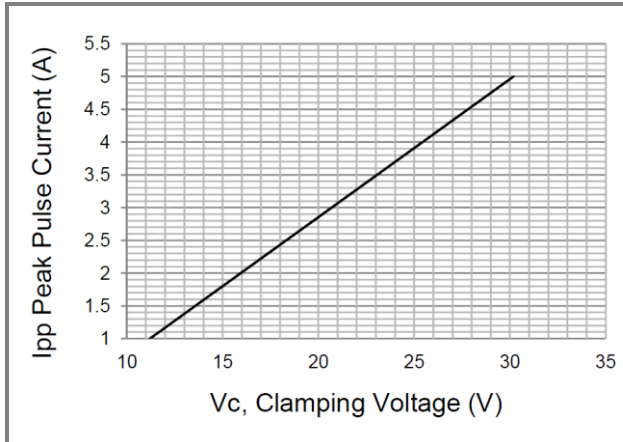


Fig.1 Typical Peak Clamping Voltage(8/20 $\mu$  s)

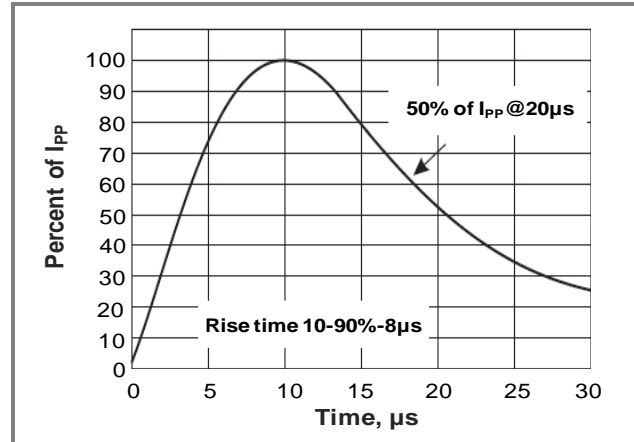


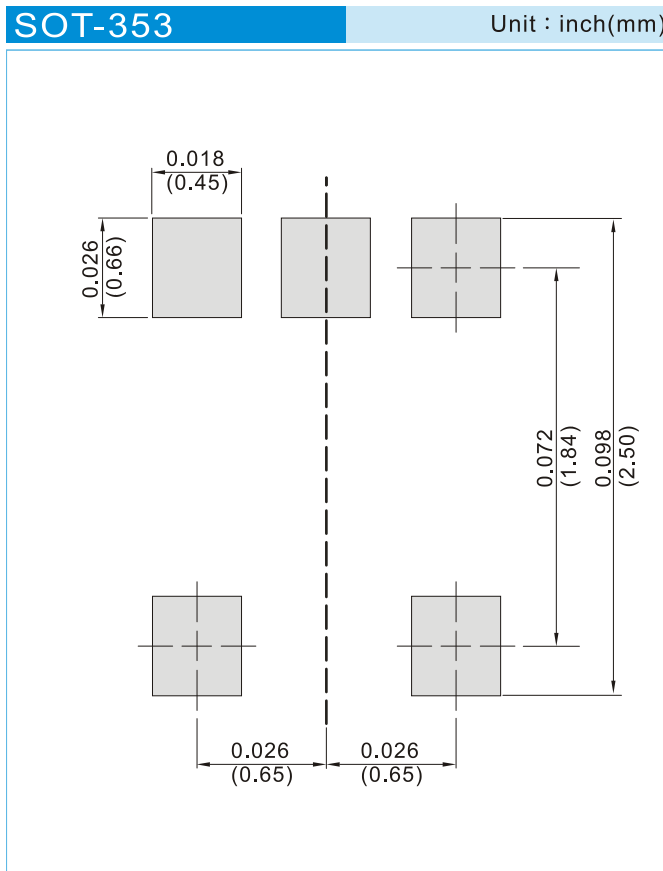
Fig.2 8/20 $\mu$  s Pulse Waveform

# PE1805C4C5

## Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
PE1805C4C5_R1_00001	SOT-353	3K pcs / 7" reel	UW5	Halogen free
PE1805C4C5_R2_00001	SOT-353	10K pcs / 13" reel	UW5	Halogen free

## MOUNTING PAD LAYOUT





## PE1805C4C5

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