



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): 40A(5/50nS)
- IEC61000-4-5(Lightning): 5A(8/20 μ S)
- Low leakage current, maximum 1 μ 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

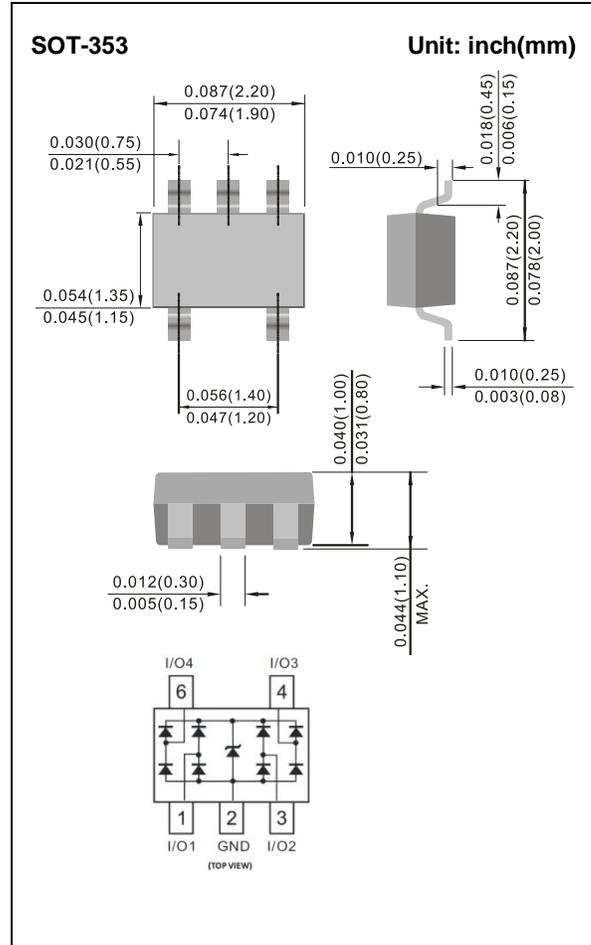
- Case: SOT353, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0002 ounces, 0.006 grams

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_{ESD}	± 17	kV
ESD IEC61000-4-2(Contact)		± 12	
Operating Junction Temperature Range	T_J	-55 to +150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}\text{C}$





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Electrical Characteristics

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage ^(Note 1)	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	μA
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

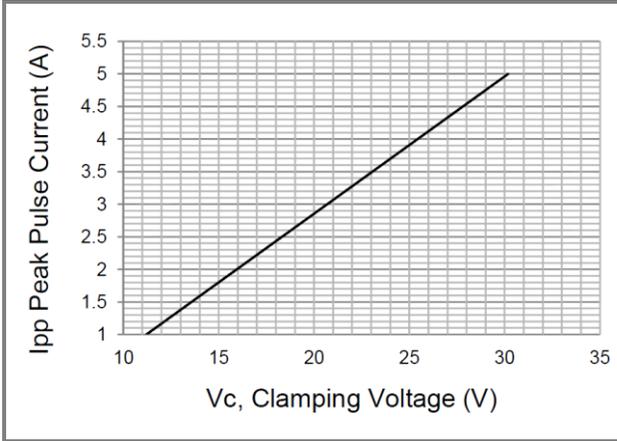


Fig.1 Typical Peak Clamping Voltage(8/20μ s)

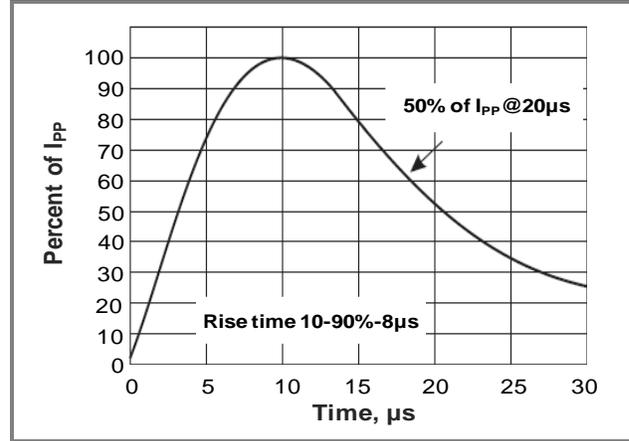


Fig.2 8/20μ s Pulse Waveform

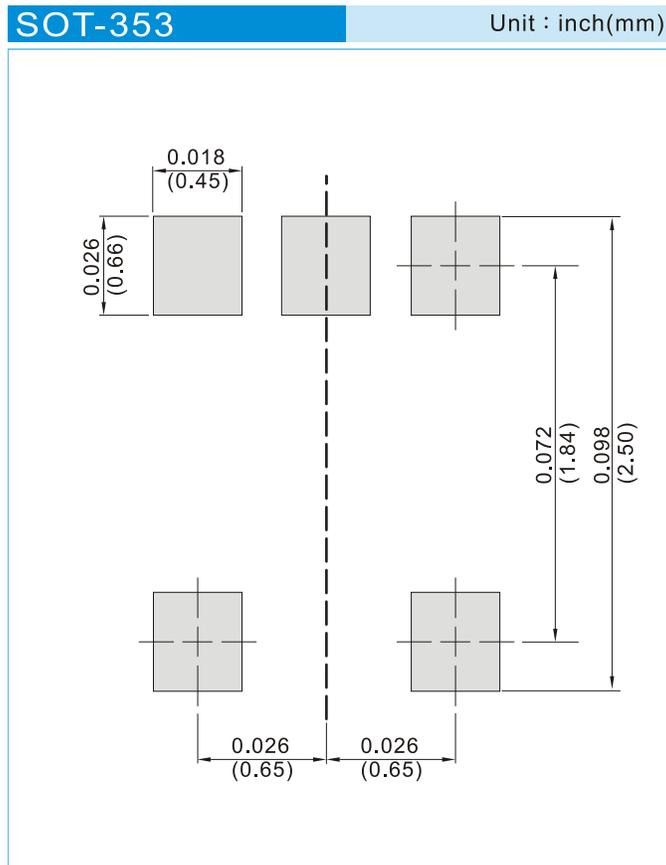


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Part No Packing Code Version

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





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