



PE4105C3C6

HI-SURGE ESD PROTECTION

Voltage

5 V

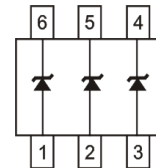
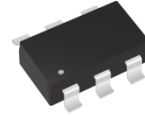
Features

- IEC61000-4-2(ESD): ± 30 kV Air, ± 30 kV Contact
- IEC61000-4-4(EFT): 40 A(5/50 ns)
- IEC61000-4-5(Lightning): 13 A(8/20 μ S)
- Low clamping voltage
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case: Molded plastic, SOT-363
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00021 ounces, 0.006 grams

SOT-363



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

PARAMETER	SYMBOL	LIMIT	UNITS
ESD IEC61000-4-2(Air)	V_{ESD}	± 30	kV
ESD IEC61000-4-2(Contact)		± 30	
Typical Thermal Resistance	$R_{\theta JA}^{(1)}$	540	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-55~150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55~150	$^\circ\text{C}$



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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage	$V_{RWM}^{(2)}$	-	-	-	5	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR} = 1\text{ mA}$	6	-	-	V
Reverse Leakage Current	I_R	$V_R = 5\text{ V}$	-	-	1	μA
Clamping Voltage	V_{CL}	$I_{PP} = 1\text{ A}, t_P = 8/20\text{ us}$	-	-	8	V
		$I_{PP} = 13\text{ A}, t_P = 8/20\text{ us}$	-	-	11	
Clamping Voltage TLP	$V_{CL}^{(3)}$	$I_{PP} = 8\text{ A}, t_P = 100\text{ ns}$	-	8.28	-	V
		$I_{PP} = 16\text{ A}, t_P = 100\text{ ns}$	-	9.6	-	
Dynamic Resistance	R_{DYN}	$t_P = 100\text{ ns}$	-	0.17	-	Ω
Off State Junction Capacitance	C_J	0Vdc Bias $f = 1\text{ MHz}$	-	-	120	pF

NOTES:

1. Mounted on a FR4 PCB, Single-sided copper, mini pad.
2. 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.
3. Testing using Transmission Line Pulse (TLP) conditions: $Z_0 = 50\Omega$, $t_P = 100\text{ ns}$.



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TYPICAL CHARACTERISTIC CURVES

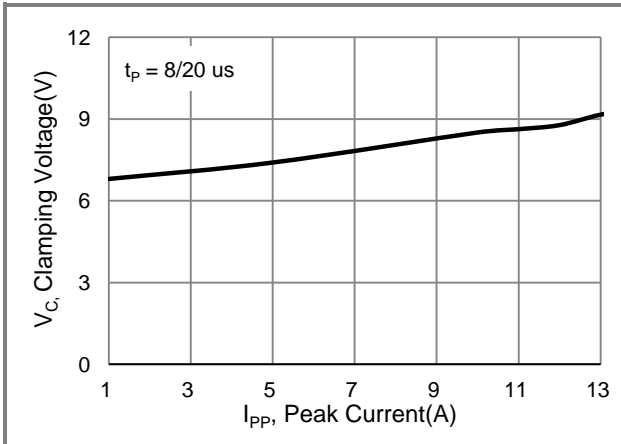


Fig.1 Typical Peak Clamping Voltage

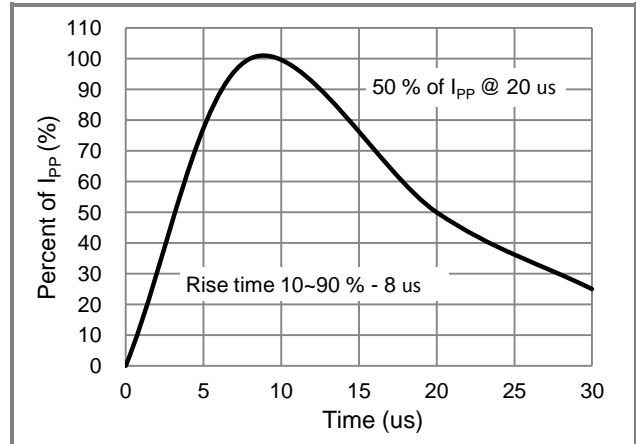


Fig.2 Pulse Waveform

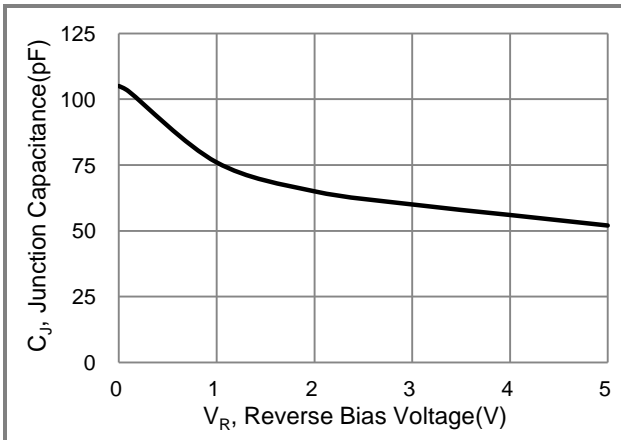


Fig.3 Typical Junction Capacitance

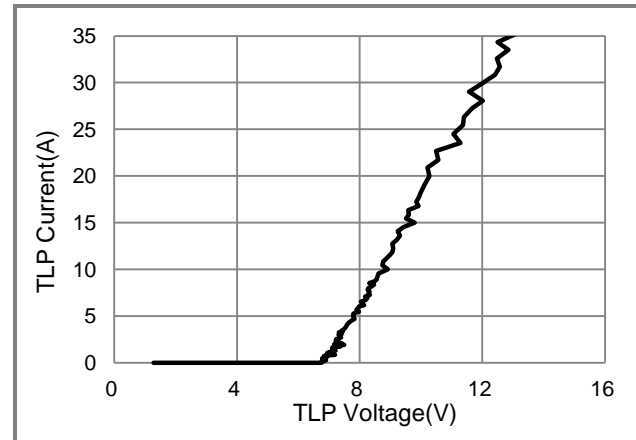


Fig.4 TLP Measurement

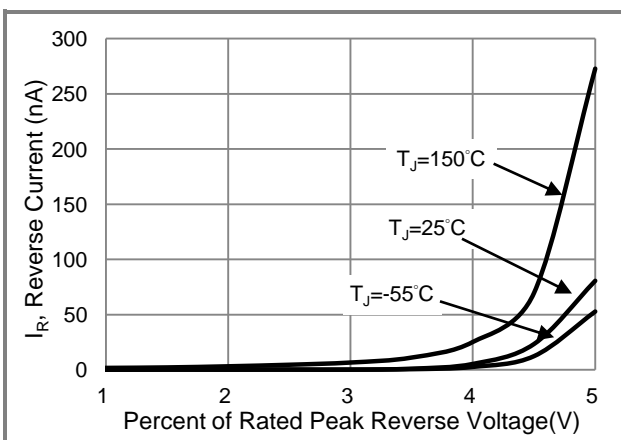


Fig.5 Typical Reverse Characteristics

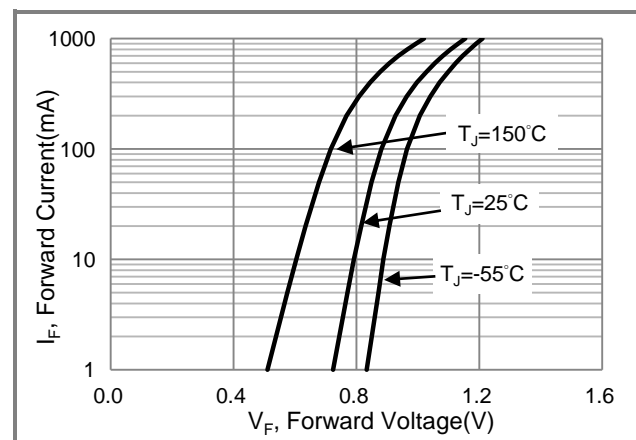


Fig.6 Typical Forward Characteristics

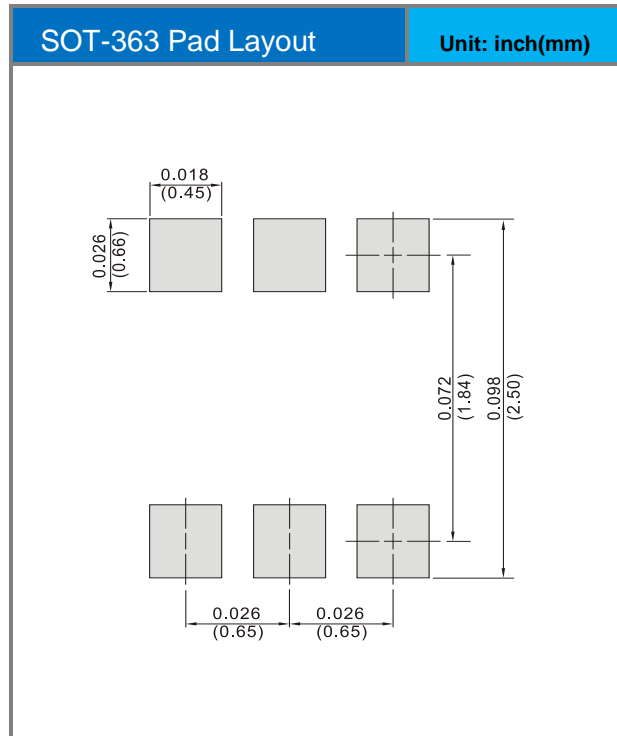
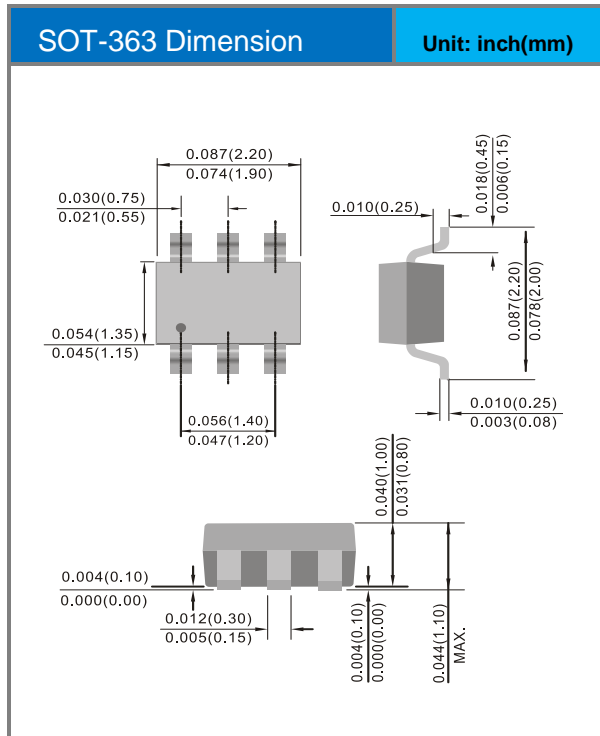


PE4105C3C6

Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
PE4105C3C6_R1_00001	SOT-363	3K / 7" Reel	3C6	Halogen Free

Packaging Information & Mounting Pad Layout





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