

ESD NOISE CLIPPING DIODE
NNCD6.8PH

LOW CAPACITANCE TYPE ELECTROSTATIC DISCHARGE
 NOISE CLIPPING DIODE (QUARTO TYPE: COMMON ANODE)
 5-PIN SUPER SMALL MINI MOLD

DESCRIPTION

The NNCD6.8PH is a diode developed for ESD (Electrostatic Discharge) absorption. Based on the IEC-61000-4-2 test on electromagnetic interference (EMI), the diode assures an endurance of no less than 30 kV, thus making itself most suitable for external interface circuit protection.

With four elements mounted in the 5-PIN super mini mold package, the product can cope with more high density assembling.

FEATURES

- Base on the electrostatic discharge immunity test (IEC 61000-4-2), the product assures the minimum endurance of 30 kV.
- With four elements in the MINI MOLD package, the products can achieve high density and automatic packaging.

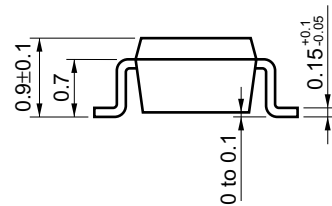
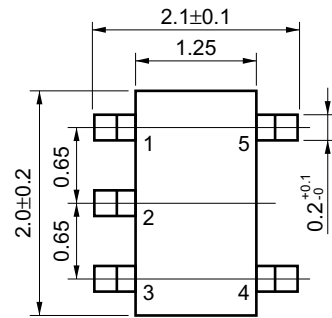
APPLICATIONS

- External interface circuit ESD absorption
- Circuits for waveform clipper, surge absorber

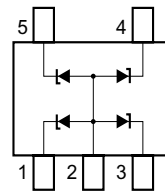
MAXIMUM RATINGS (T_A = 25°C)

ITEM	SYMBOL	RATING	UNIT	REMARK
Power Dissipation	P	200	mW	Total
Surge Reverse Power	P _{RSM}	85 (t = 10 μs 1 pulse)	W	
Junction Temperature	T _j	150	°C	
Storage Temperature	T _{stg}	-55 to +150	°C	

PACKAGE DIMENSION (Unit: mm)



ELECTRODE CONNECTION



- 1. K1: Cathode 1
- 2. A : Anode (common)
- 3. K2: Cathode 2
- 4. K3: Cathode 3
- 5. K4: Cathode 4

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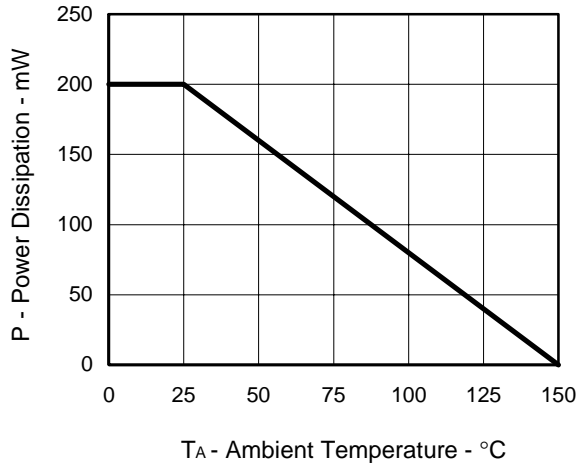
ELECTRICAL CHARACTERISTICS (T_A = 25°C) (A to K1, A to K2, A to K3, A to K4)

TYPE No.	BREAKDOWN VOLTAGE ^{Note1} V _{BR} (V)			CAPACITANCE C _i (pF)		REVERSE LEAKAGE I _R (μA)		DYNAMIC IMPEDANCE ^{Note2} Z _z (Ω)		ESD VOLTAGE ^{Note3} (kV)	
	MIN.	MAX.	I _T (mA)	TYP.	Condition	MAX.	V _R (V)	MAX.	I _T (mA)	MIN.	Condition
	NNCD6.8PH	6.2	7.1	5	90	V _R = 0 V f = 1 MHz	2	3.5	40	5	30

- Notes**
1. Tested with pulse (40 ms)
 2. Z_z is measured at I_T given a small A.C. signal.
 3. Based upon with IEC 61000-4-2

TYPICAL CHARACTERISTICS (T_A = 25°C)

Figure 1. POWER DISSIPATION vs. AMBIENT TEMPERATURE



★ Figure 2. I_T - V_{BR} CHARACTERISTICS (A-K1, A-K2, A-K3, A-K4)

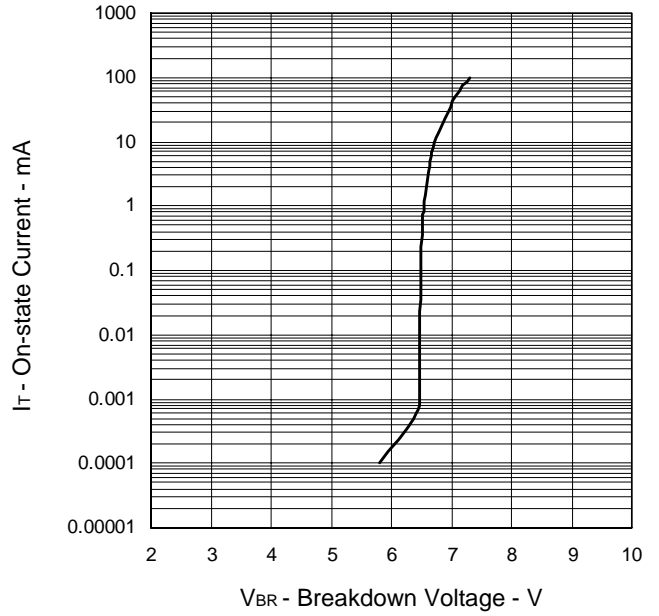


Figure 3. Z_z - I_T

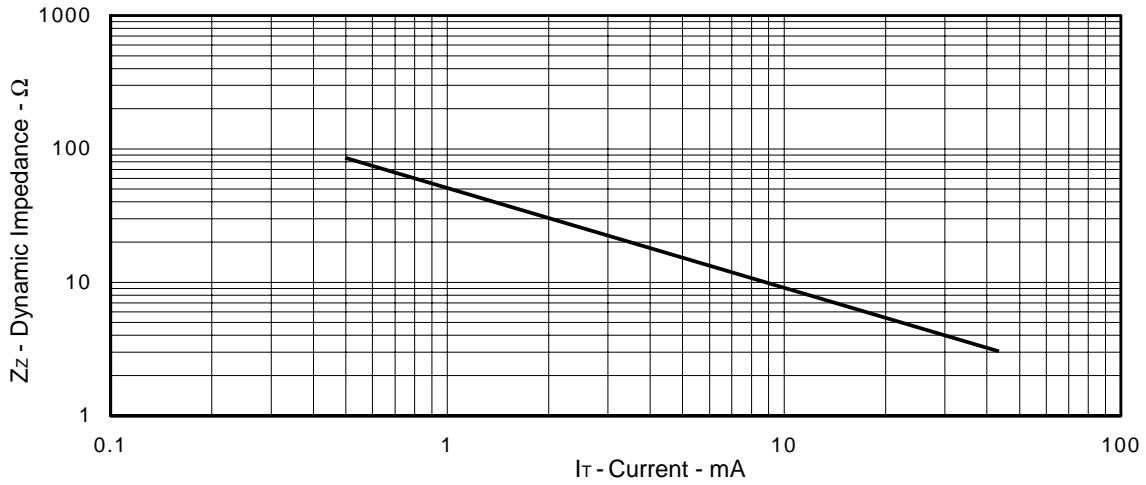


Figure 4. C_t - V_R CHARACTERISTICS

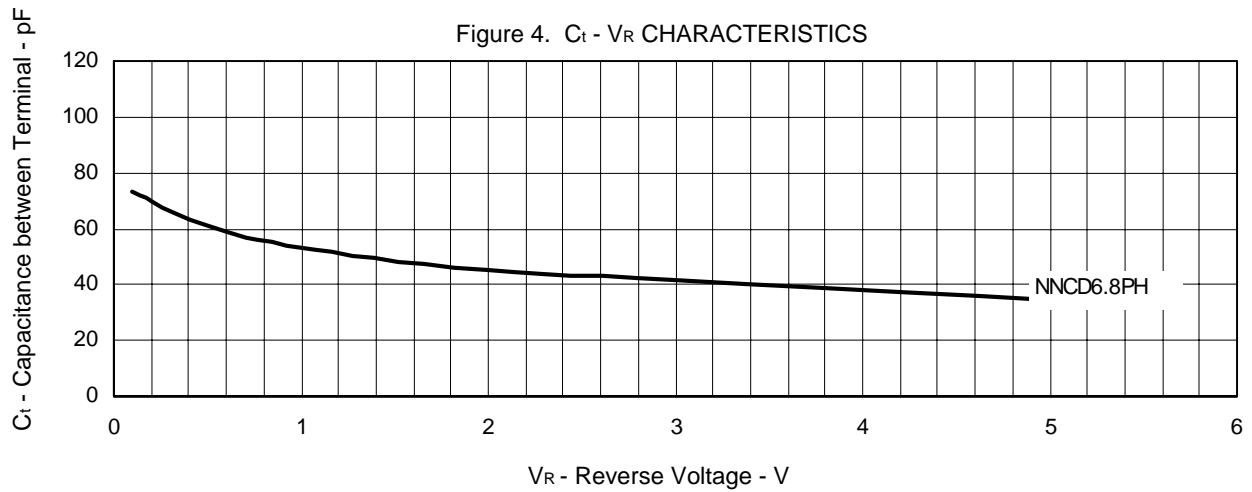
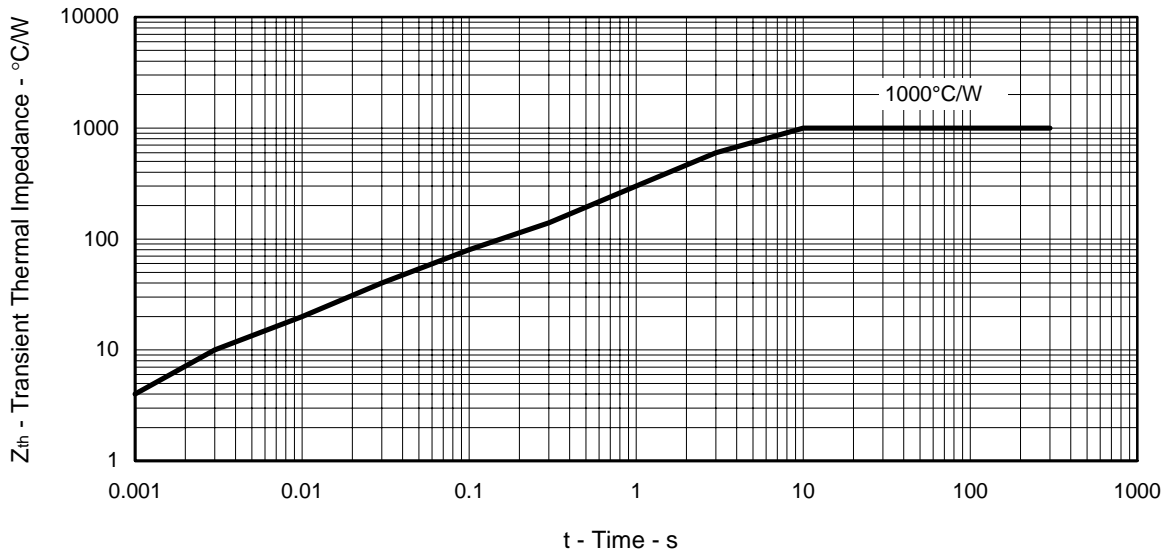
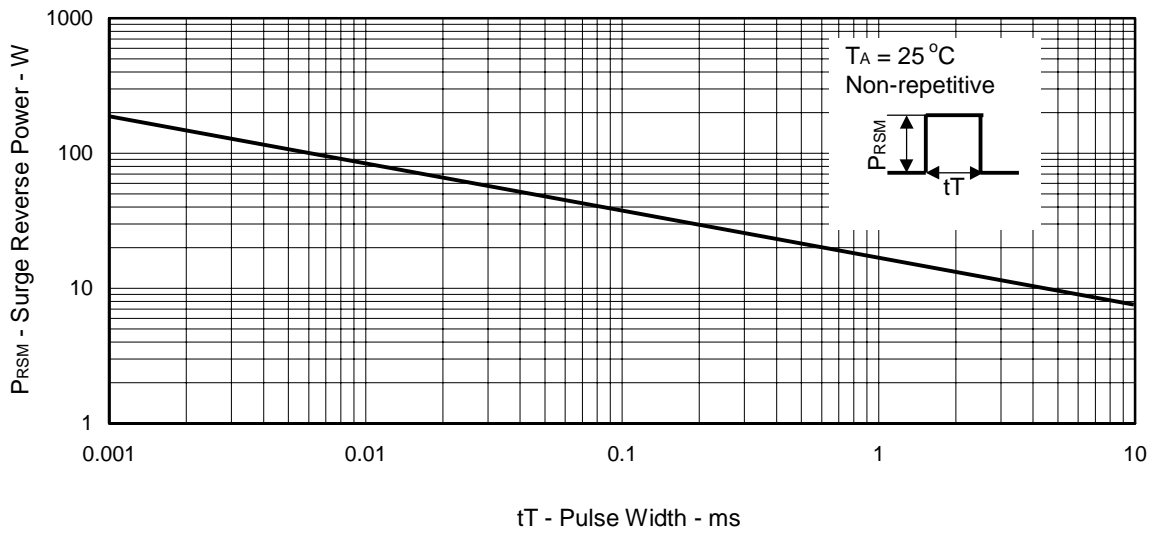


Figure 5. TRANSIENT THERMAL IMPEDANCE CHARACTERISTICS



★ Figure 6. SURGE REVERSE POWER RATINGS



[MEMO]

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