

# SDT12D

**TVS Diode** 

#### **Features**

- Transient protection for data lines to IEC61000-4-2(ESD) 15KV(air), 8KV(contact)
- Small package for use in portable electronics
- Low operating and clamping voltage

### **Applications**

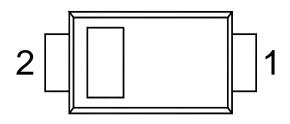
- Cellular Handsets and Accessories
- Microprocessor based equipment
- Notebooks, Desktops and Servers

### **Ordering Information**

Type NO.	Marking	Package Code
SDT12D	<u>T7</u> <u> </u>	SOD-323

①Device Code ② Year & Week Code

#### **PIN Connection**





- 1. Anode
- 2. Cathode

KSD-D6C008-001

# SDT12D

## **Absolute maximum ratings**

**Ta=25**°C

Characteristic	Symbol	Ratings	Unit
Peak pulse power ( tp = 8/20 \mus )	P <sub>PK</sub>	350	W
Peak pulse current (tp = 8/20 \mus )	I <sub>PP</sub>	15	А
Lead soldering temperature	T <sub>L</sub>	260 (10sec.)	°C
Juction temperature	T <sub>J</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-55 ~ 150	°C

## **Electrical Characteristics**

Ta=25°C

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse stand-off voltage	$V_{RWM}$				12	V
Reverse breakdown voltage	$V_R$	I <sub>t</sub> =1mA	13.3			V
Reverse leakage current	I <sub>R</sub>	V <sub>R</sub> =12V			1	μA
Clamping voltage	$V_{C}$	I <sub>PP</sub> =5A, tp=8/20 ⊭s			19	V
Junction capacitance	CJ	V <sub>R</sub> =0V, f=1MHz			150	pF

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#### **Electrical Characteristics Curves**

Fig. 1 Power derating curve

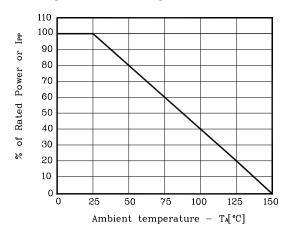


Fig. 3 Pulse Waveform

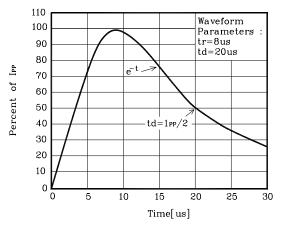


Fig. 2 None-repetitive peak pulse power vs pulse time

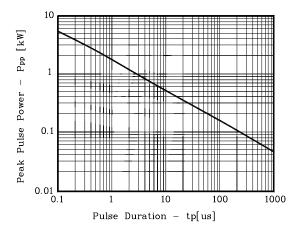
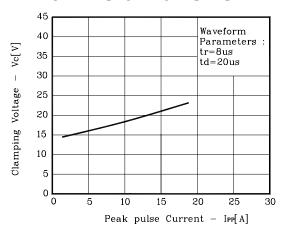
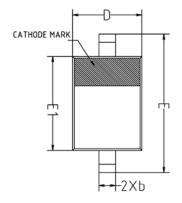


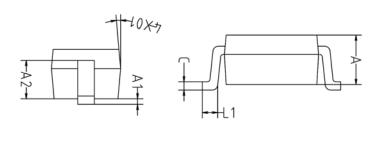
Fig. 4 Clamping voltage vs peak pulse current



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## **Outline Dimension**





SYMBOL	1	NOTE		
3111002	MINIMUM	NOMINAL	MAXIMUM	NOTE
Α	0.850	-	0.950	
A1	0.000	-	0.100	
A2	0.650	0.700	0.750	
Ь	0.250	0.300	0.350	
С	0.110	0.150	0.190	
D	1.200	1.250	1.300	
Е	2.400	2.500	2.600	
E1	1.650	1.700	1.750	
L1	0.200	-	0.300	
<del>0</del> 2		5° REF		

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