

# 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**

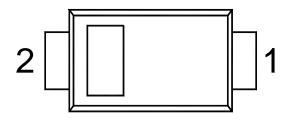
- Cellular Handsets and Accessories
- Microprocessor based equipment
- Notebooks, Desktops and Servers

### **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 <sub>C</sub>	I <sub>PP</sub> =5A, tp=8/20 ⊭s			19	V
Junction capacitance	CJ	V <sub>R</sub> =0V, f=1MHz			150	pF

KSD-D6C008-001 2

### SDT12D

#### **Electrical Characteristics Curves**

Fig. 1 Power derating curve

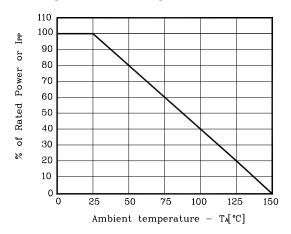


Fig. 3 Pulse Waveform

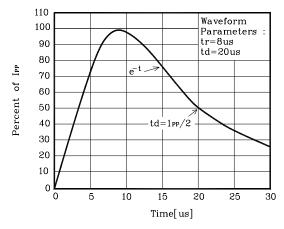


Fig. 2 None-repetitive peak pulse power vs pulse time

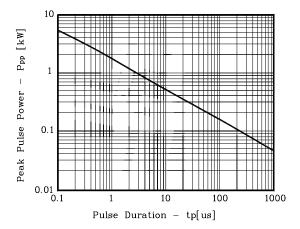
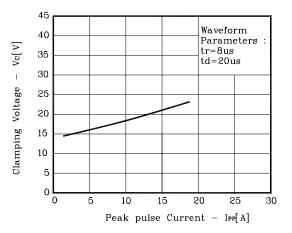
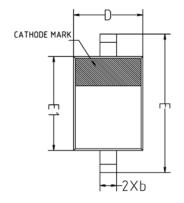


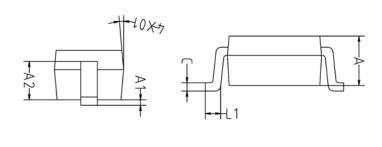
Fig. 4 Clamping voltage vs peak pulse current



KSD-D6C008-001 3

## **Outline Dimension**





SYMBOL	1	NOTE		
STITIBUL	MINIMUM	NOMINAL	MAXIMUM	INOIL
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	
E	2.400	2.500	2.600	
E1	1.650	1.700	1.750	
L1	0.200	-	0.300	
<del>0</del> 2		5° REF		

KSD-D6C008-001

The AUK Corp. products are intended for the use as components in general electronic equipment (Office and communication equipment, measuring equipment, home appliance, etc.).

Please make sure that you consult with us before you use these AUK Corp. products in equipments which require high quality and / or reliability, and in equipments which could have major impact to the welfare of human life(atomic energy control, airplane, spaceship, transportation, combustion control, all types of safety device, etc.). AUK Corp. cannot accept liability to any damage which may occur in case these AUK Corp. products were used in the mentioned equipments without prior consultation with AUK Corp..

Specifications mentioned in this publication are subject to change without notice.

KSD-D6C008-001 5