AUK Semiconductor

SDT05S

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

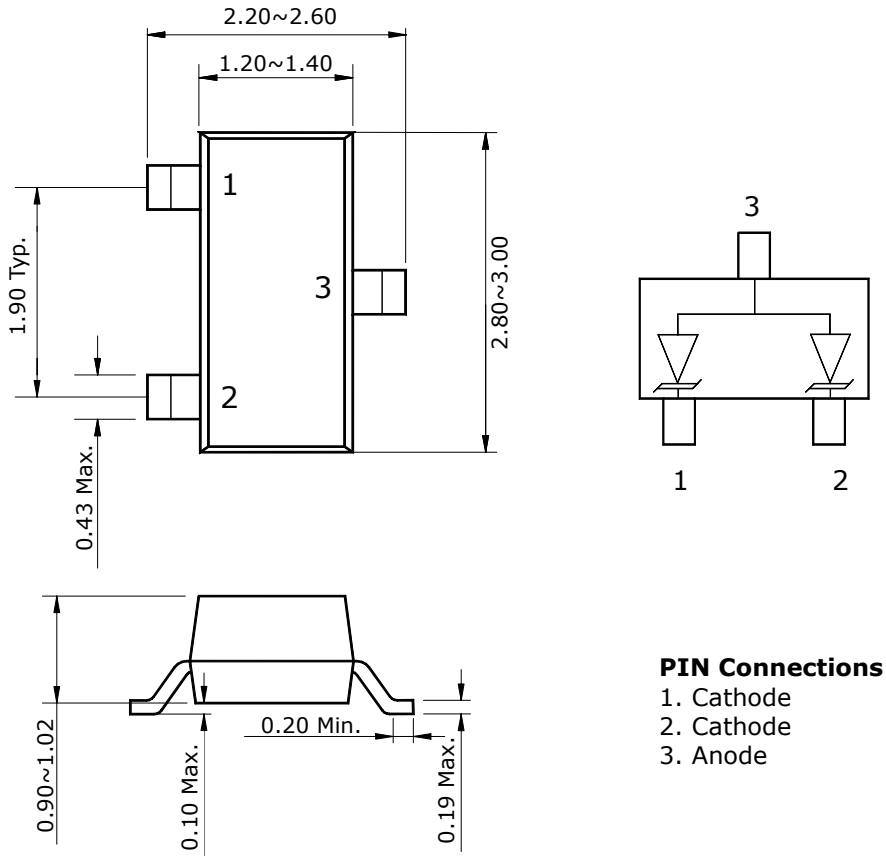
- Cellular Handsets and Accessories
- Microprocessor based equipment
- Notebooks, Desktops and Servers

Ordering Information

Type NO.	Marking	Package Code
SDT05S	S05	SOT-23

Outline Dimensions

unit : mm



PIN Connections
1. Cathode
2. Cathode
3. Anode

Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Peak pulse power (tp = 8/20 μs)	P_{PK}	200	W
Peak pulse current (tp = 8/20 μs)	I_{PP}	12	A
Lead soldering temperature	T_L	260 (10sec.)	°C
Junction temperature	T_J	125	°C
Storage temperature range	T_{stg}	-55 ~ 150	°C

Electrical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse breakdown voltage	V_{BR}	I_R=1mA	6.0	-	7.5	V
Reverse leakage current	I_R	V_R=5V	-	-	5	μA
Clamping voltage	$V_{C(1)}$	I_{PP}=1A, tp=8/20 μs	-	-	9.5	V
	$V_{C(2)}$	I_{PP}=12A, tp=8/20 μs	5.0	-	12.5	V
Tatal capacitance	C_T	Between I/O pins and GND V_R=0V, f=1MHz	-	-	150	pF

Electrical Characteristics Curves

Fig. 1 P_{PP} vs t_d

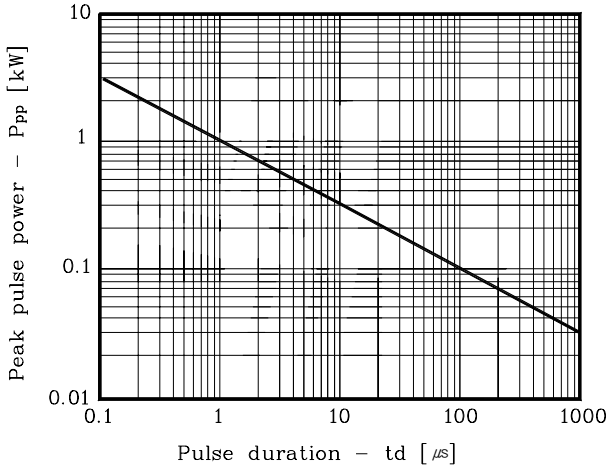


Fig. 2 Power derating curve

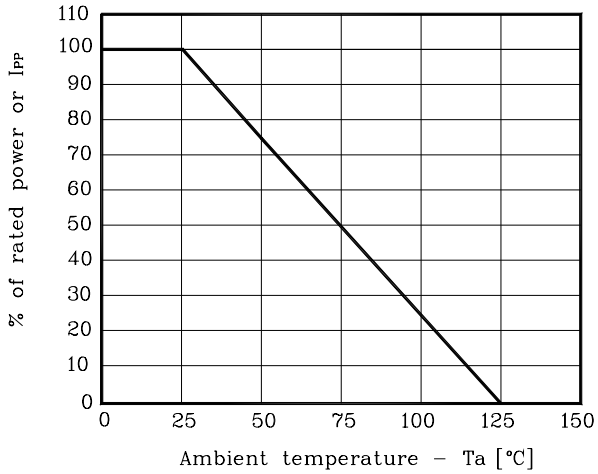


Fig. 3 Current of I_P

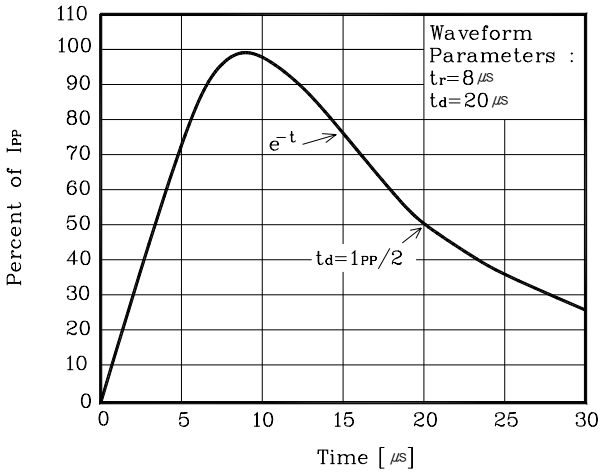


Fig. 4 V_C vs I_{PP}

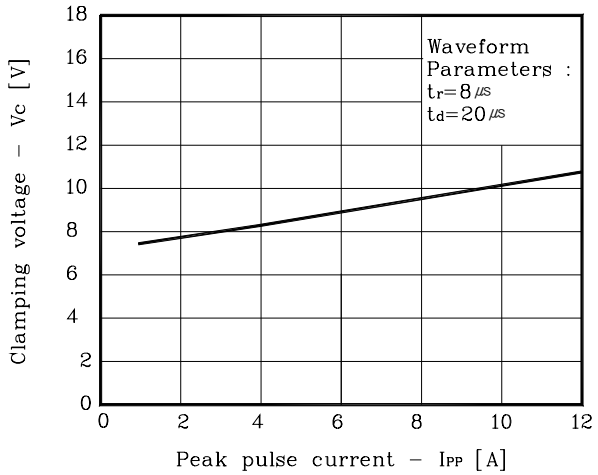
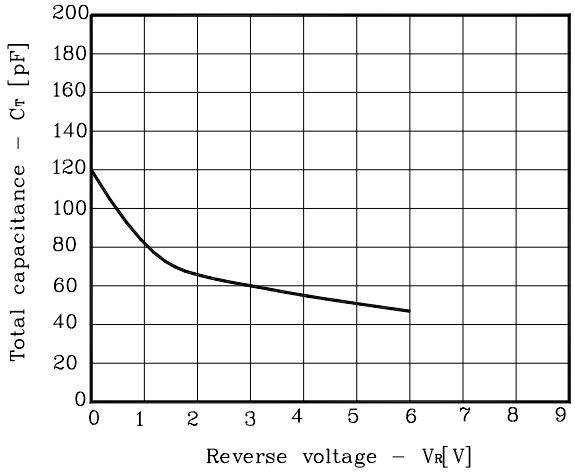


Fig. 5 C_T vs V_R



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