AUK Semiconductor

SDT05SF

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

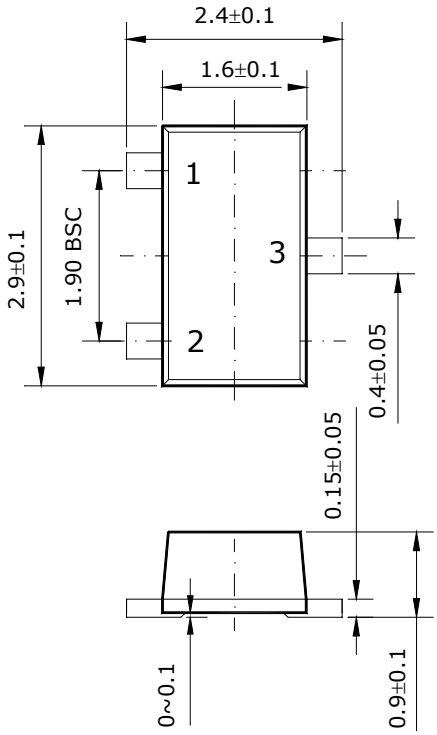
- Cellular Handsets and Accessories
- Microprocessor based equipment
- Notebooks, Desktops and Servers

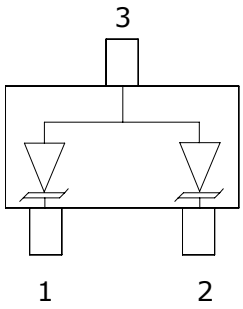
Ordering Information

Type NO.	Marking	Package Code
SDT05SF	S05	SOT-23F

Outline Dimensions

unit : mm





PIN Connections
1. Cathode
2. Cathode
3. Anode

Absolute maximum ratings

Ta=25°C

Characteristic	Symbol	Ratings	Unit
Peak pulse power (tp = 8/20 μs)	P_{PK}	300	W
Peak pulse current (tp = 8/20 μs)	I_{PP}	17	A
Lead soldering temperature	T_L	260 (10sec.)	°C
Operating temperature	T_J	-55 ~ 125	°C
Storage temperature	T_{stg}	-55 ~ 150	°C

Electrical Characteristics

Ta=25°C

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse stand-off voltage	V_{RWM}				5	V
Reverse breakdown voltage	V_{BR}	I_t=1mA	6			V
Reverse leakage current	I_R	V_{RWM}=5V , T=25℃			20	μA
Clamping voltage	V_C	I_{PP}=1A, tp=8/20 μs			9.8	V
Junction capacitance	C_J	Pin 1 to 2 V_R=0V, f=1MHz			350	pF
Junction capacitance	C_J	Pin 1 to 3 and Pin 2 to 3 V_R=0V, f=1MHz			400	pF

Electrical Characteristics Curves

Fig. 1 Power derating curve

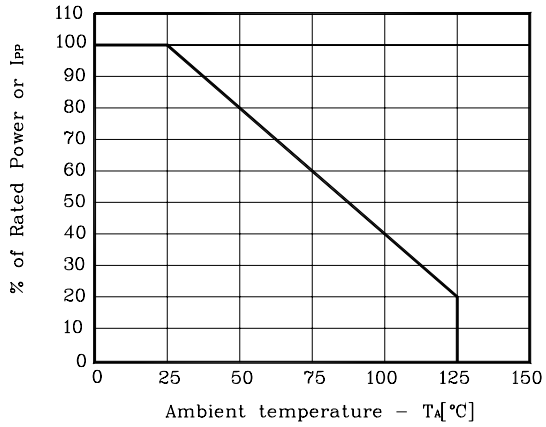


Fig. 2 None-repetitive peak pulse power vs pulse time

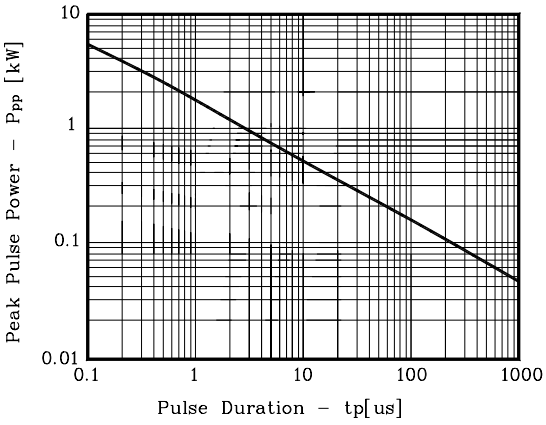


Fig. 3 Pulse Waveform