

**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**

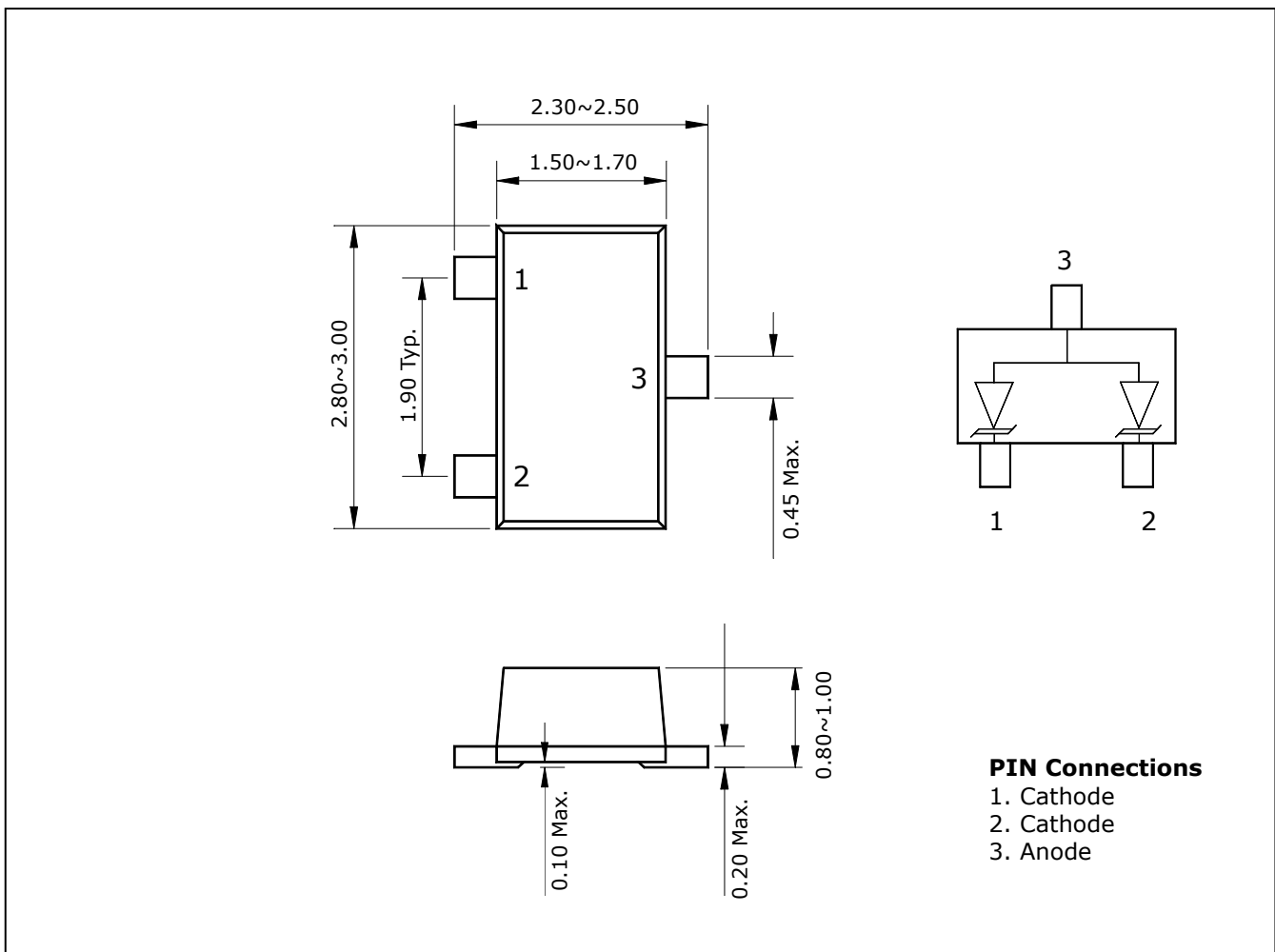
- Cellular Handsets and Accessories
- Microprocessor based equipment
- Notebooks, Desktops and Servers

**Ordering Information**

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

**Outline Dimensions**

unit : mm



## Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Peak pulse power ( tp = 8/20 $\mu$ s )	P <sub>PK</sub>	200	W
Peak pulse current ( tp = 8/20 $\mu$ s )	I <sub>PP</sub>	12	A
Lead soldering temperature	T <sub>L</sub>	260 (10sec. )	°C
Junction temperature	T <sub>J</sub>	125	°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 breakdown voltage	V <sub>BR</sub>	I <sub>R</sub> =1mA	6.0	-	7.5	V
Reverse leakage current	I <sub>R</sub>	V <sub>R</sub> =5V	-	-	5	$\mu$ A
Clamping voltage	V <sub>C(1)</sub>	I <sub>PP</sub> =1A, tp=8/20 $\mu$ s	-	-	9.5	V
	V <sub>C(2)</sub>	I <sub>PP</sub> =12A, tp=8/20 $\mu$ s	5.0	-	12.5	V
Total capacitance	C <sub>T</sub>	Between I/O pins and GND V <sub>R</sub> =0V, f=1MHz	-	-	150	pF

Electrical Characteristics Curves

Fig. 1  $P_{PP}$  vs  $t_d$

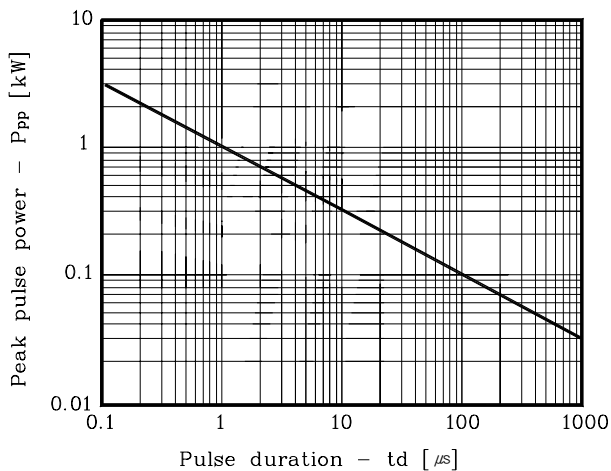


Fig. 2 Power derating curve

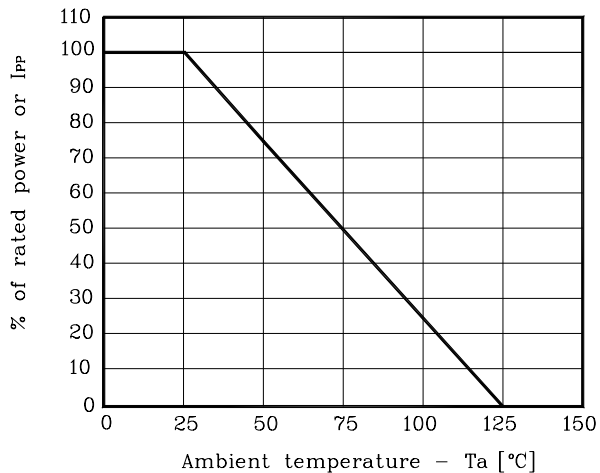


Fig. 3 Current of  $I_P$

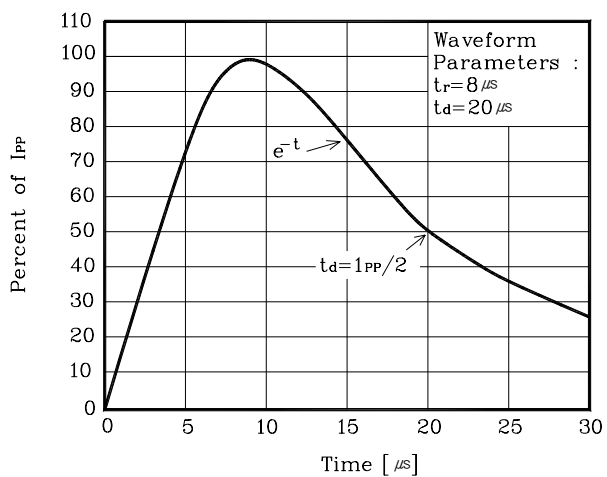


Fig. 4  $V_C$  vs  $I_{PP}$

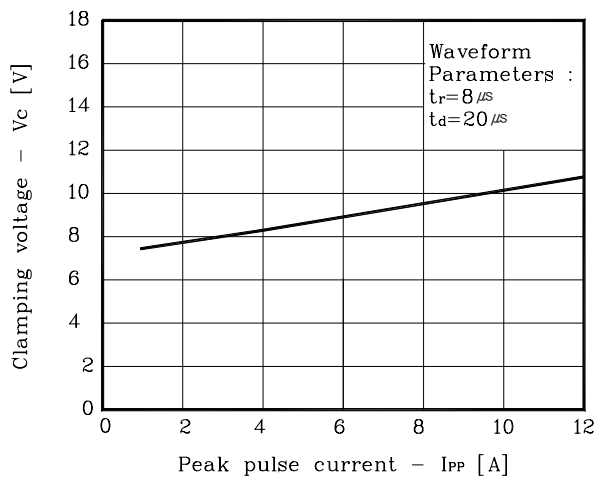
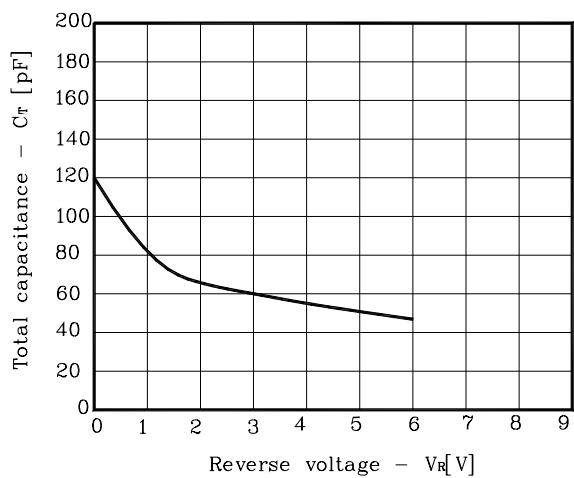


Fig. 5  $C_T$  vs  $V_R$



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