

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

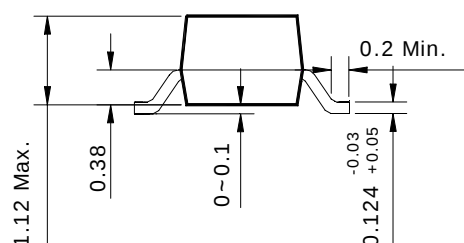
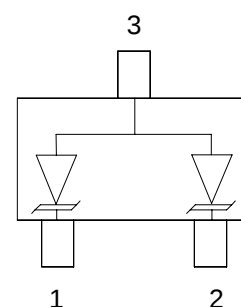
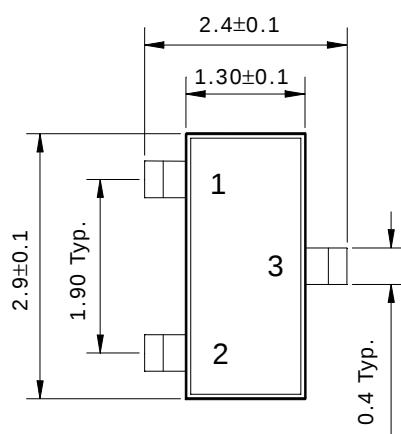
- Cellular Handsets and Accessories
- Microprocessor based equipment
- Notebooks, Desktops and Servers

Ordering Information

Type NO.	Marking	Package Code
SDT12S	S12	SOT-23

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 ($t_p = 8/20 \mu s$)	P_{PK}	300	W
Peak pulse current ($t_p = 8/20 \mu s$)	I_{PP}	12	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}				12	V
Reverse breakdown voltage	V_{BR}	$I_t = 1mA$	13.3			V
Reverse leakage current	I_R	$V_{RWM} = 12V$, $T = 25$			1	μA
Clamping voltage	V_C	$I_{PP} = 1A$, $t_p = 8/20 \mu s$			19	V
Junction capacitance	C_J	Pin 1 to 2 $V_R = 0V$, $f = 1MHz$			120	pF
Junction capacitance	C_J	Pin 1 to 3 and Pin 2 to 3 $V_R = 0V$, $f = 1MHz$			150	pF

Electrical Characteristics Curves

Fig. 1 Power derating curve

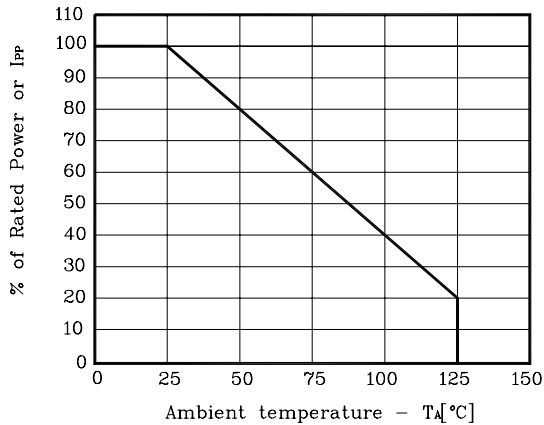


Fig. 2 None-repetitive peak pulse power vs pulse time

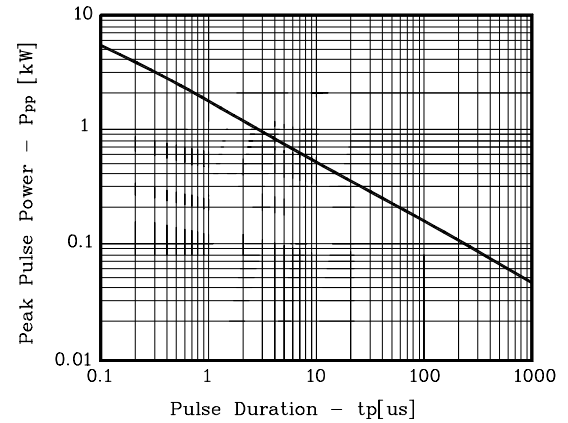


Fig. 3 Pulse Waveform

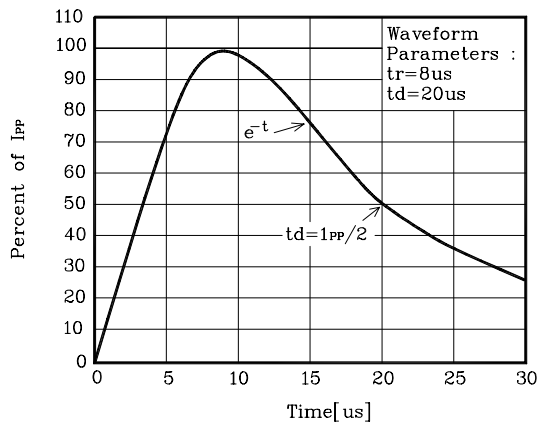


Fig. 4 Clamping voltage vs peak pulse current

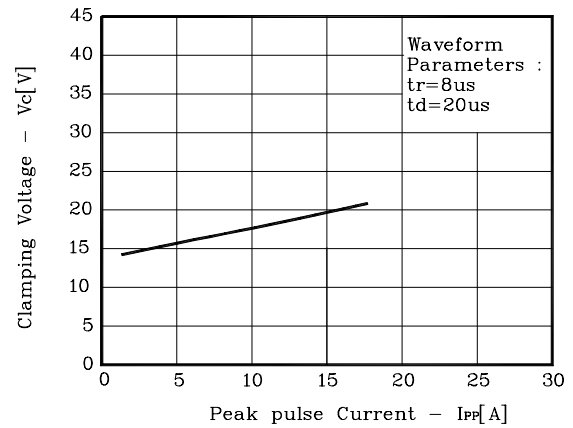


Fig. 5 Forward voltage vs forward current

