



SDT05H

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
- Protects five I/O lines

Applications

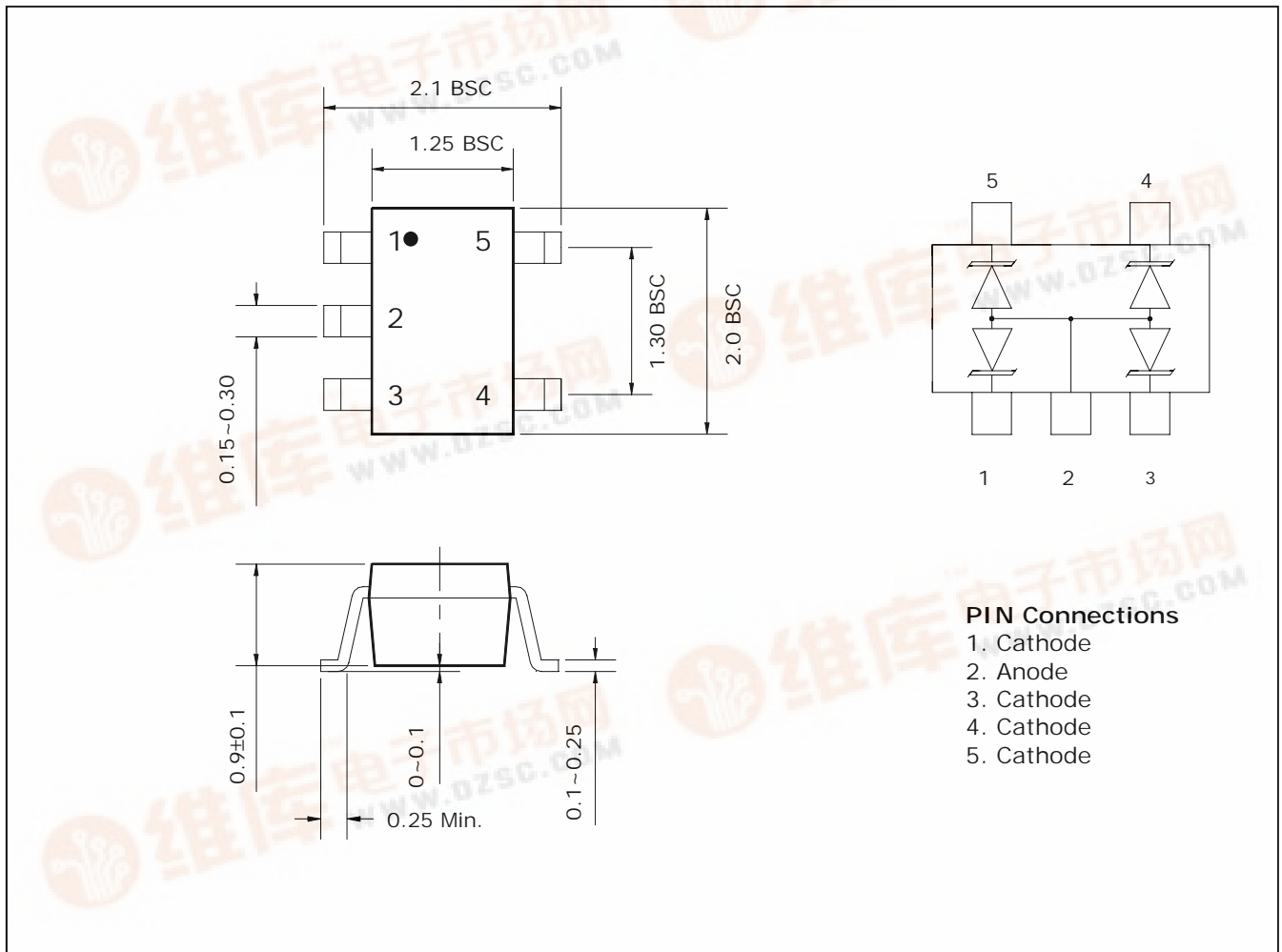
- Cell phone Handsets and Accessories
- Microprocessor based equipment
- Notebooks, Desktops and Servers

Ordering Information

Type NO.	Marking	Package Code
SDT05H	H05	SOT-353

Outline Dimensions

unit : mm



SDT05H

Absolute maximum ratings

Ta=25°C

Characteristic	Symbol	Ratings	Unit
Peak pulse power (tp = 8/20 μ s)	P _{PK}	200	W
Peak pulse current (tp = 8/20 μ s)	I _{PP}	12	A
Peak forward voltage (IF=1A, tp = 8/20 μ s)	V _{FP}	1.5	V
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			10	μ A
Clamping voltage	V _C	I _{PP} =1A, tp=8/20 μ s			9.5	V
Clamping voltage	V _C	I _{PP} =12A, tp=8/20 μ s			12.5	V
Junction capacitance	C _J	Between I/O pins and Gnd V _R =0V, f=1MHz			150	pF

Electrical Characteristics Curves

Fig. 1 None-repetitive peak pulse power vs pulse time

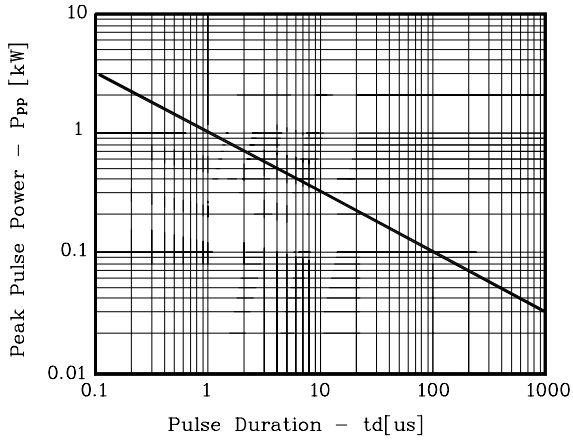


Fig. 2 Power derating curve

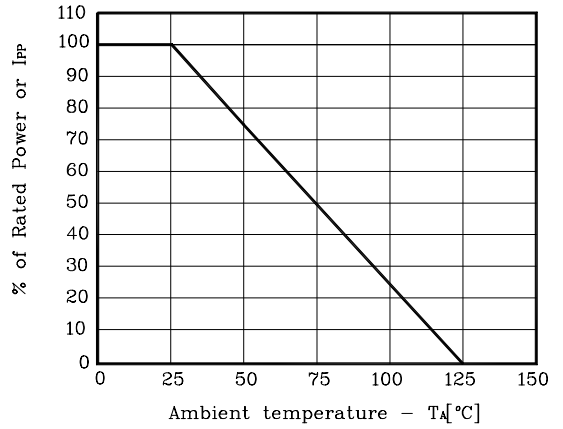


Fig. 3 Pulse Waveform

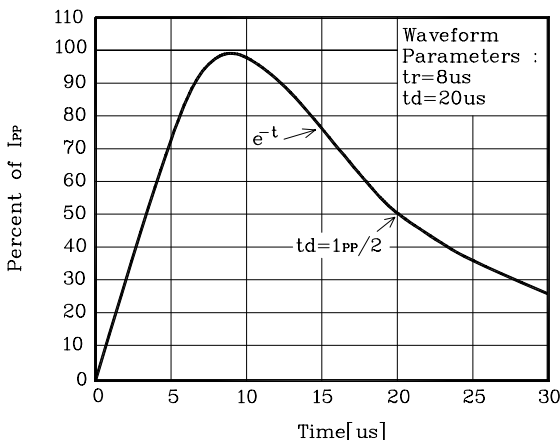


Fig. 4 Clamping voltage vs peak pulse current

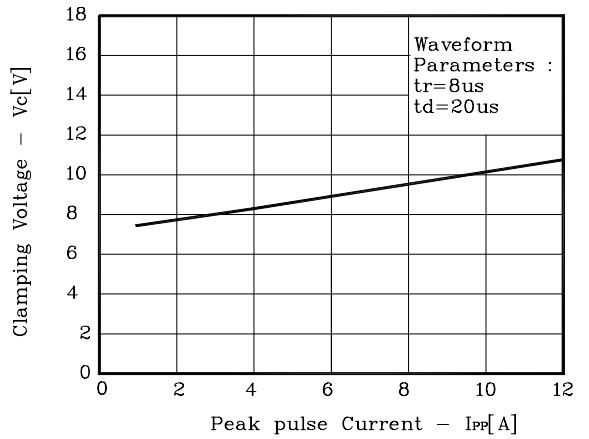


Fig. 5 Capacitance vs Reverse voltage

