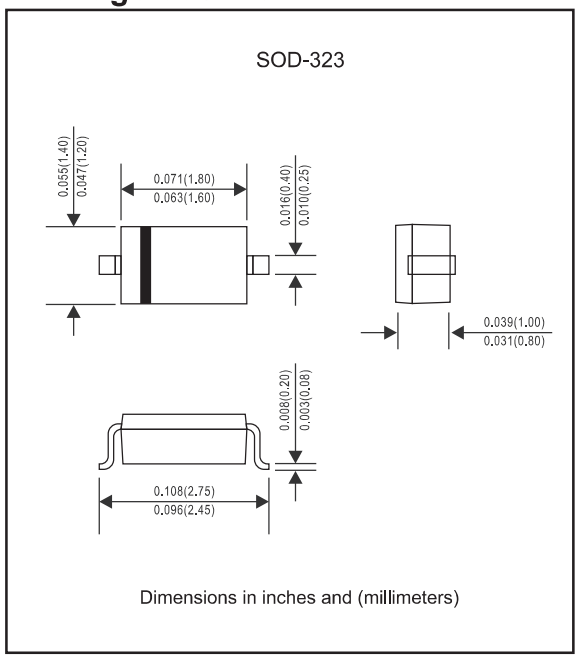
DESD5V0S1BA-7-FS

Semiconductor TVS

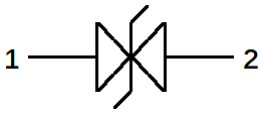
Features

- Ultra low leakage: nA level
- Low clamping voltage
- RoHS Compliant
- REACH & SVHC Compliant
- Halogen Compliant
- SOD-323 Package

Package outline



Circuit Diagram



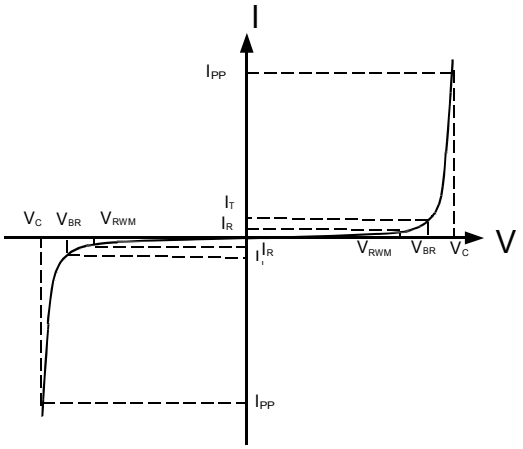
Ordering Information

Part Number	Packaging	Reel Size
DESD5V0S1BA-7-FS	3000/Tape & Reel	7 inch

Marking : 3M

Portion Electronics Parameter

Symbol	Parameter
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @I_{PP}



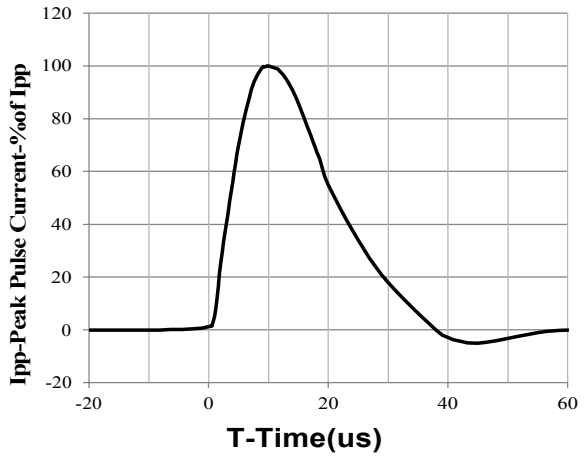
Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs pulse)	P_{pk}	120	W
Peak Pulse Current (8/20μs pulse)	I_{PP}	10	A
ESD per IEC 61000−4−2 (Air) ESD per IEC 61000−4−2 (Contact)	V_{ESD}	±30 ±30	kV
Operating Temperature Range	T_J	−40 to +125	°C
Storage Temperature Range	T_{stg}	−55 to +150	°C

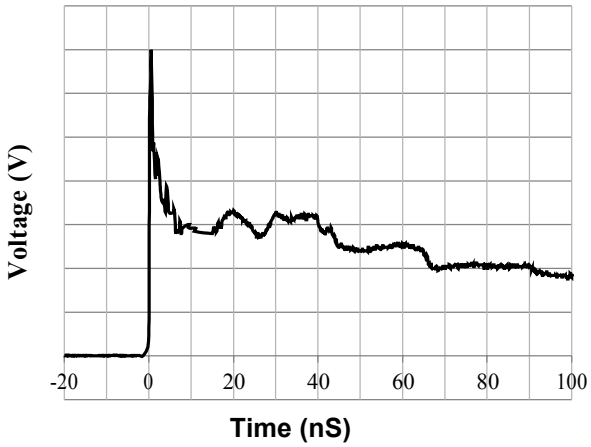
Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				5	V
Breakdown Voltage	V_{BR}	I_T = 1mA	6			V
Reverse Leakage Current	I_R	V_{RWM} = 5V			100	nA
Clamping Voltage	V_C	I_{PP} = 1A (8 / 20μs pulse)		7.1	9	V
Clamping Voltage	V_C	I_{PP} = 10A (8 / 20μs pulse)		8.3	12	V
Junction Capacitance	C_J	V_R = 0V, f = 1MHz，		17	25	pF

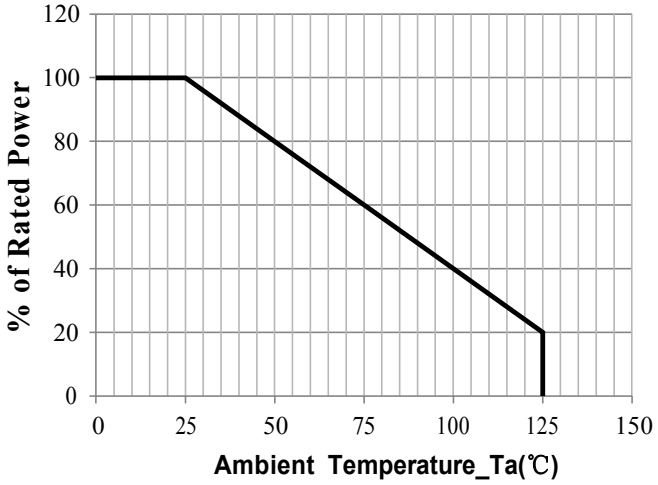
Typical Performance Characteristics (T_A=25°C unless otherwise Specified)



8 / 20us Pulse Waveform



IEC61000−4−2 Pulse Waveform



Power Derating Curve