ESD5Z3.3T1G

1-Line Uni-directional TVS Diode

Applications

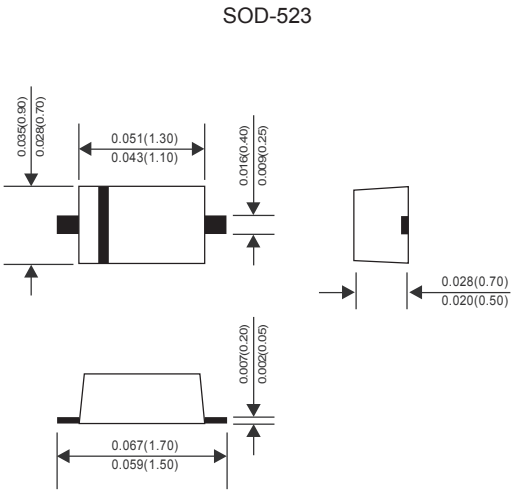
* Power Management
* Industrial Application
* Power Supply Protection
* Many other portable devices
* SOD-523 Package

Circuit Diagram



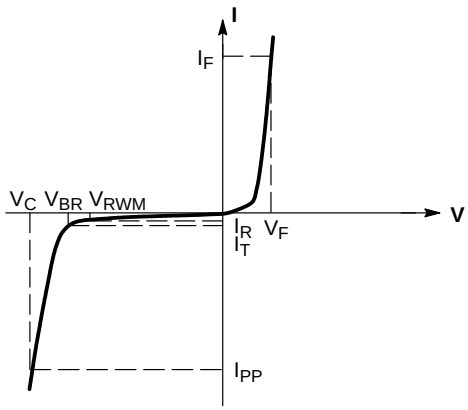
Marking Diagram：ZE

Package outline



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}



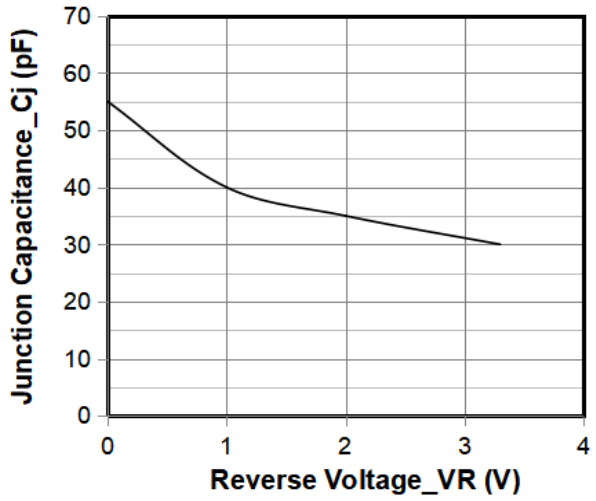
Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	130	W
Peak Pulse Current (8/20μs)	I_{PP}	11	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	−55 to +125	°C
Storage Temperature Range	T_{stg}	−55 to +150	°C

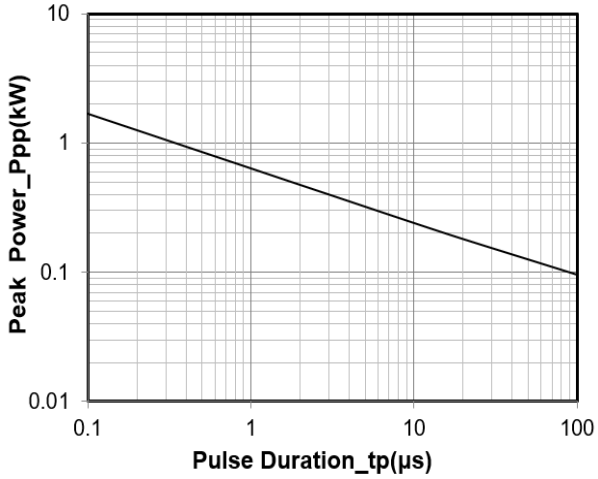
Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				3.3	V
Breakdown Voltage	V_{BR}	IT = 1mA	4.0			V
Reverse Leakage Current	I_R	V_{RWM} = 3.3V			1.0	μA
Clamping Voltage	V_C	I_{PP} = 1A (8 / 20μs pulse)			8	V
Clamping Voltage	V_C	I_{PP} = 11A (8 / 20μs pulse)			13	V
Junction Capacitance	C_J	V_R = 0V, f = 1MHz		60		pF

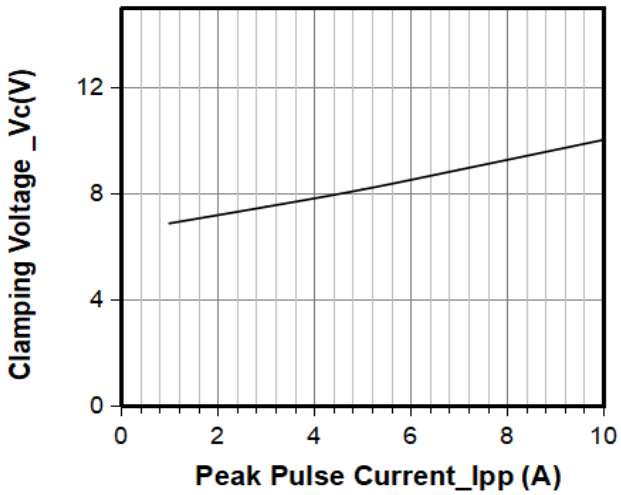
Typical Performance Characteristics (T_A=25°C unless otherwise Specified)



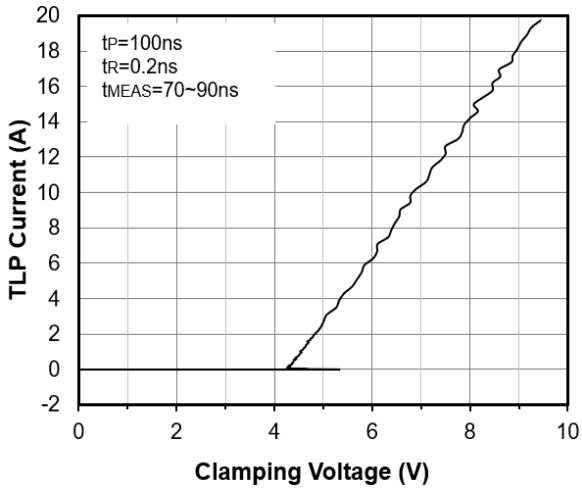
Junction Capacitance vs. Reverse Voltage



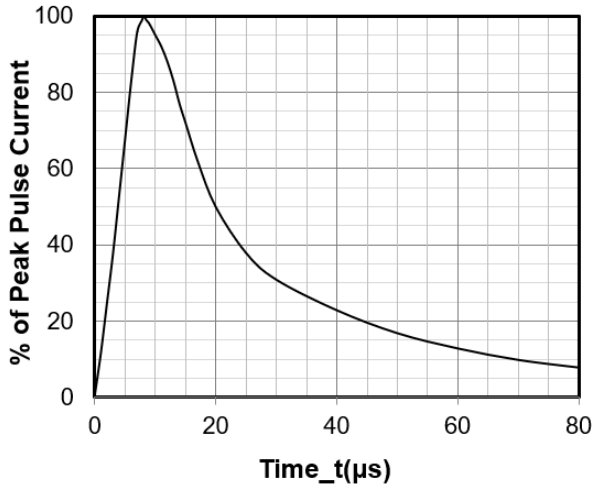
Peak Pulse Power vs. Pulse Time



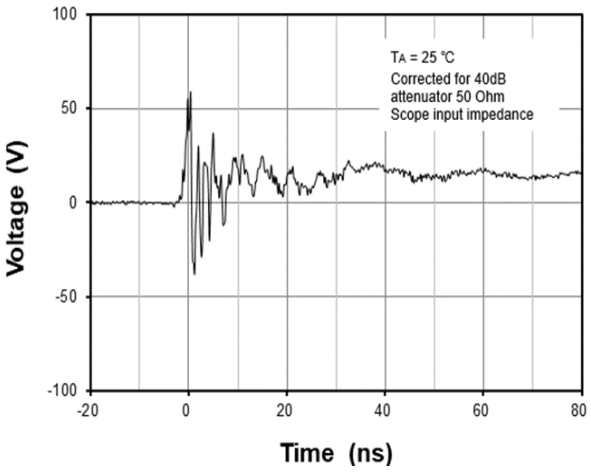
Clamping Voltage vs. Peak Pulse Current (tp = 8/20μs)



TLP Measurement



8 X 20μs Pulse Waveform



ESD Clamping Voltage

8 kV Contact per IEC61000−4−2