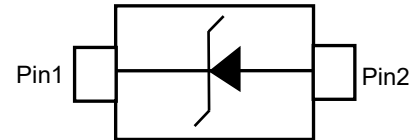


Description And Applications

This new generation TVS is designed to protect sensitive electronics from the damage due to ESD. The combination of small size and high ESD surge capability makes it ideal for use in portable applications.



Features and Benefits

- Provides ESD Protection per IEC 61000-4-2
Standard: Air $\pm 30\text{kV}$, Contact $\pm 30\text{kV}$
- One Channel of ESD Protection
- Low Channel Input Capacitance

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit	Conditions
Peak Pulse Power Dissipation	P _{PP}	360	W	8/20μs, per Figure 1
Peak Pulse Current	I _{PP}	6	A	8/20μs, per Figure 1
ESD Protection – Contact Discharge	V _{ESD_CONTACT}	±30	kV	IEC 61000-4-2 Standard
ESD Protection – Air Discharge	V _{ESD_AIR}	±30	kV	IEC 61000-4-2 Standard

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Package Power Dissipation (Note 5)	P _D	250	mW
Thermal Resistance, Junction to Ambient (Note 5)	R _{θJA}	500	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Reverse Standoff Voltage	V _{RWM}			24	V	
Channel Leakage Current (Note 6)	I _{RM}			200	nA	V _{RWM} = 24V
Clamping Voltage, IEC 61000-4-5	V _{CL}			36	V	I _{PP} = 1A, t _p = 8/20μS
Breakdown Voltage	V _{BR}			60	V	I _{PP} = 6A, t _p = 8/20μS
		27		34	V	I _R = 1mA
Channel Input Capacitance	C _T		35		pF	V _R = 0V, f = 1MHz

Notes: 1. Device mounted on FR-4 PCB pad layout (2oz copper)

2. Short duration pulse test used to minimize self-heating effect.

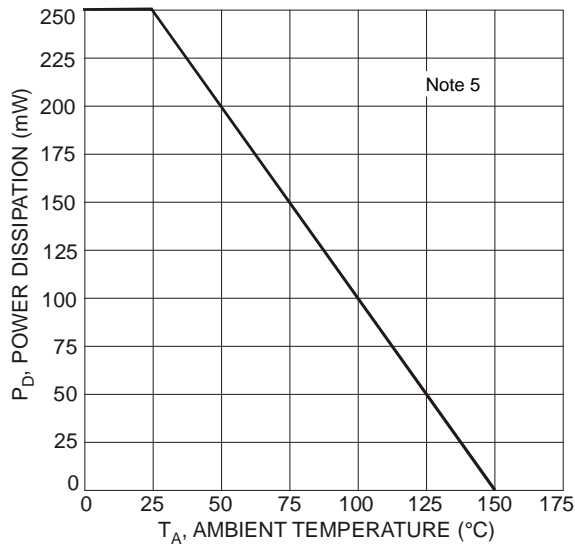


Figure 1 Power Derating Curve

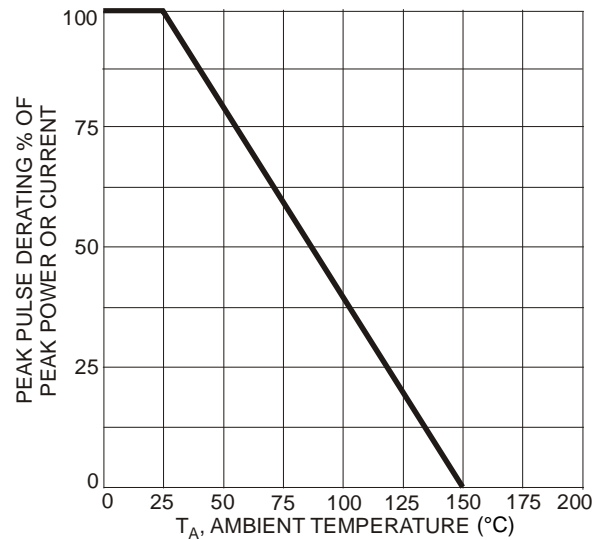


Figure 2 Pulse Derating Curve

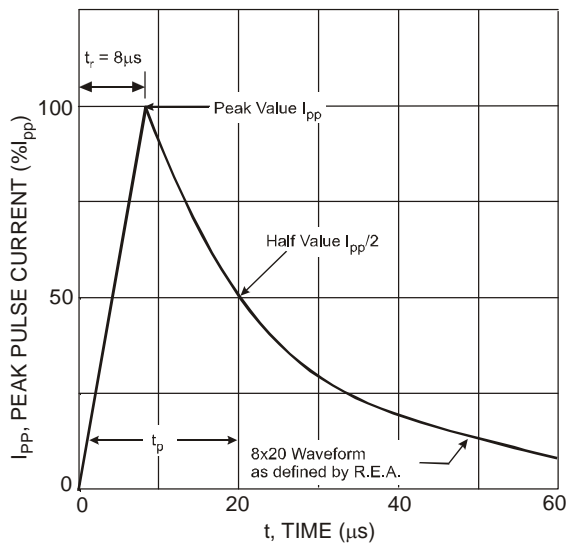


Figure 3 Pulse Waveform

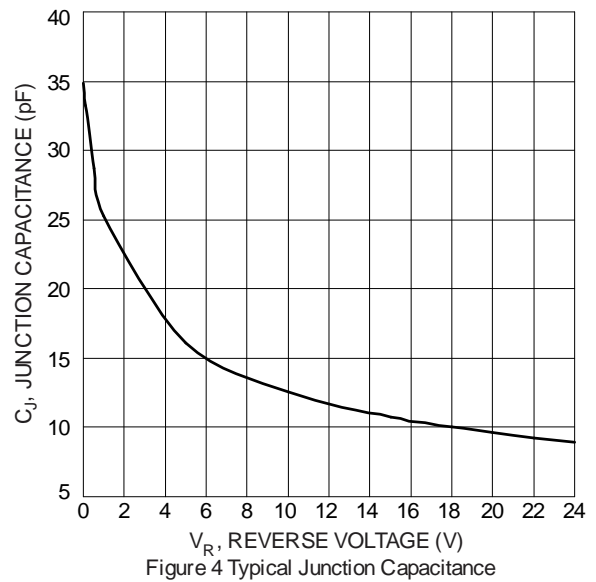
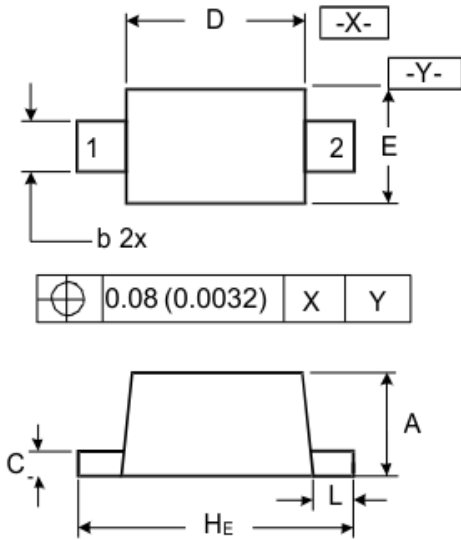


Figure 4 Typical Junction Capacitance

Package outline dimensions

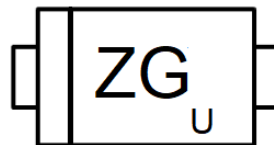
SOD-523



DIMENSIONS

SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.50	0.70	0.020	0.028
b	0.25	0.35	0.010	0.014
C	0.07	0.20	0.0028	0.0079
D	1.10	1.30	0.043	0.051
E	0.70	0.90	0.028	0.035
H _E	1.50	1.70	0.059	0.067
L	0.15	0.25	0.006	0.010

Marking



Ordering information

Order code	Package	Base qty	Delivery mode
UMW D24V0S1U2TQ-7	SOD-523	3000	Tape and reel