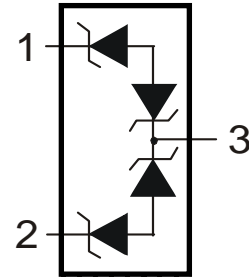


Features

- Air – ±30kV, Contact – ±30kV
- 2 Channels of Bi-Directional ESD Protection
- Low Channel Input Capacitance
- Typically Used in Cellular Handsets, Portable Electronics, Communication Systems, Computers and Peripherals



Device Schematic

Mechanical Data

- Case: SOT-23
- Case Material: Molded Plastic, “Green” Molding Compound. UL Flammability Classification Rating 94V-0
- Terminals: Matte Tin Finish annealed over Alloy 42 leadframe (Lead Free Plating). Solderable per MIL-STD-202, Method 208

Maximum Ratings @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit	Conditions
Peak Pulse Power Dissipation	P _{PP}	84	W	8/20μs, Per in Fig. 1
Peak Pulse Current	I _{PP}	6	A	8/20μs, Per in Fig. 1
ESD Protection – Contact Discharge	V _{ESD_Contact}	±30	kV	Standard IEC 61000-4-2
ESD Protection – Air Discharge	V _{ESD_Air}	±30	kV	Standard IEC 61000-4-2

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Package Power Dissipation (Note 5)	P _D	300	mW
Thermal Resistance, Junction to Ambient (Note 5)	R _{θJA}	417	°C/W
Operating Junction Temperature Range	T _J	-65 to +150	°C
Storage Temperature Range	T _{STG}	-65 to +150	°C

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Reverse Working Voltage	V_{RWM}			5.0	V	
Breakdown Voltage	V_{BR}	6	7	8	V	$I_R = 1.0\text{mA}$
Reverse Leakage Current (Note 6)	I_R		10	100	nA	$V_{RWM} = 5\text{V}$
Clamping Voltage (Note 4)	V_{CL}		7.0	9.0	V	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$
			8.7	10.7	V	$I_{PP} = 3\text{A}, t_p = 8/20\mu\text{s}$
			10.5	12.0	V	$I_{PP} = 5\text{A}, t_p = 8/20\mu\text{s}$
			11.5	14.0	V	$I_{PP} = 6\text{A}, t_p = 8/20\mu\text{s}$
Differential Resistance	R_{DIF}		0.2		Ω	$I_R = 1.0\text{A}, t_p = 8/20\mu\text{s}$
Channel Input Capacitance	C_T		15	20	pF	$V_{IN} = 0\text{V}, f = 1\text{MHz}$ (Channel to Pin 3)

- Notes:
4. Measured from channel to pin 3; Non-repetitive current pulse per Fig. 1.
 5. Device mounted on FR-4 PCB pad layout (2oz copper) as shown on Diodes
 6. Short duration pulse test used to minimize self-heating effect.

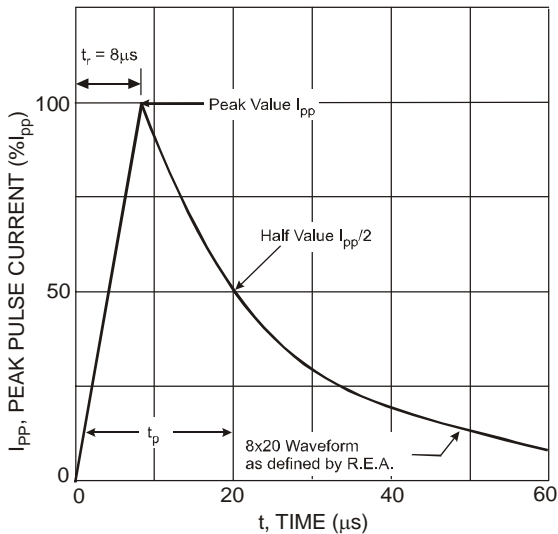


Fig. 1 Typical 8 x 20µs Pulse Waveform

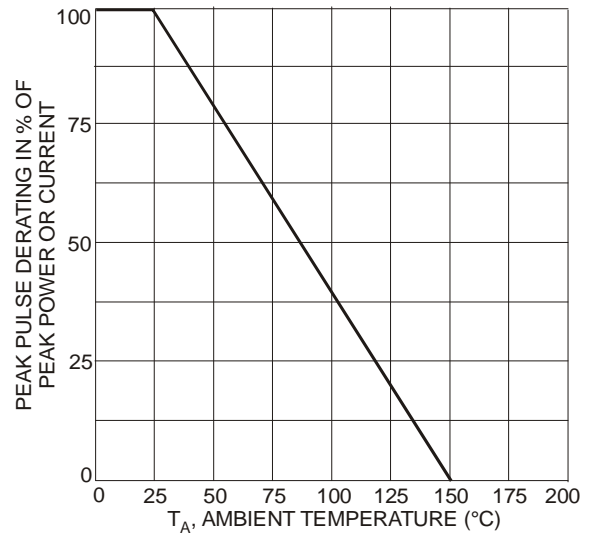


Fig. 2 Pulse Derating Curve

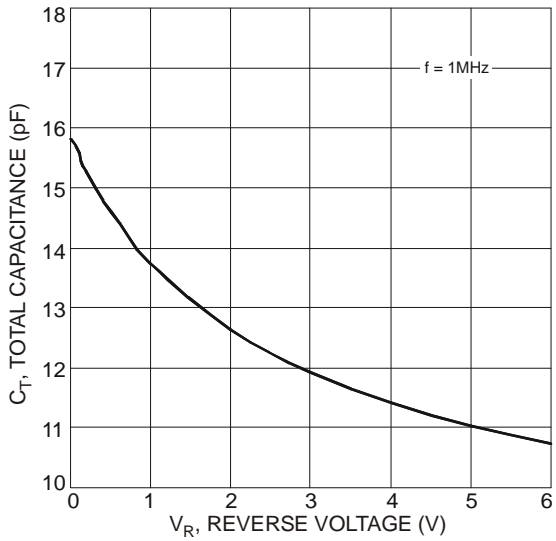


Fig. 3 Typical Total Capacitance vs. Reverse Voltage

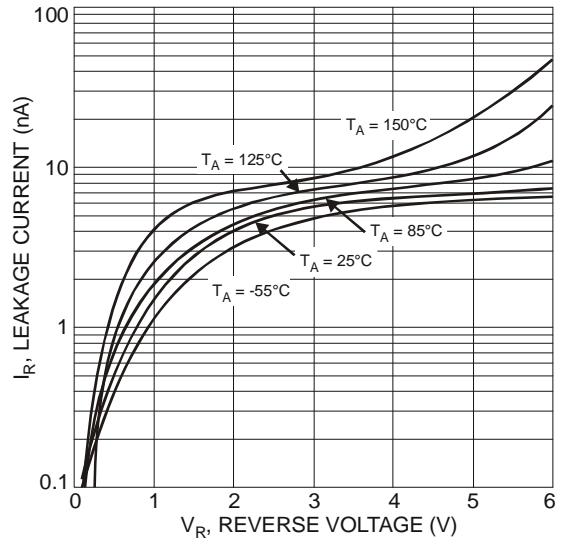
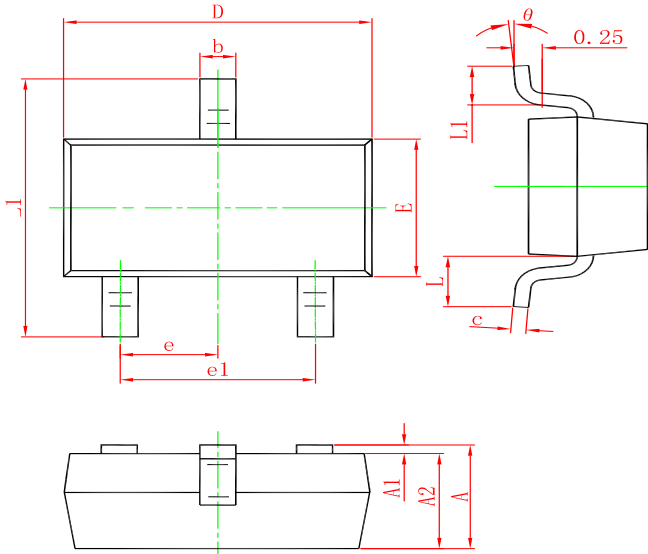


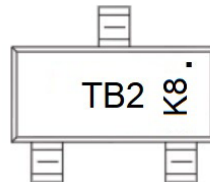
Fig. 4 Typical Reverse Characteristics

SOT-23 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP.		0.037 TYP.	
e1	1.800	2.000	0.071	0.079
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Marking



Ordering information

Order code	Package	Baseqty	Deliverymode
UMW D5V0L2B3SO-7	SOT-23	3000	Tape and reel

单击下面可查看定价，库存，交付和生命周期等信息

[>>UMW\(友台半导体\)](#)