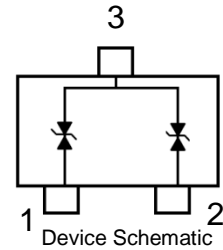


### Description

This new generation TVS is designed to meet the stringent requirements of Automotive Applications and to protect sensitive electronics from the damage due to ESD. The combination of small size and high ESD surge capability makes it ideal to protect LIN and CAN transceiver from ESD, EMI and other harmful transient voltage events.



### Features

- 350W Peak Power Dissipation Per Line (8/20µs Waveform)
- Air ±30kV, Contact ±30kV  
2 Channels of ESD Protection
- Low Channel Input Capacitance
- Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)
- Halogen and Antimony Free. “Green” Device (Note 3)

### Applications

- Industrial Control Network
- Automotive Networks

### Mechanical Data

- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Matte Tin Finish Annealed over Alloy 42 Leadframe
- Weight: 0.009 grams (Approximate)

**Maximum Ratings** (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit	Conditions
Peak Pulse Power Dissipation	P <sub>PP</sub>	350	W	8/20μs, per Figure 1
Peak Pulse Current	I <sub>PP</sub>	8	A	8/20μs, per Figure 1
ESD Protection – Contact Discharge	V <sub>ESD_CONTACT</sub>	±30	kV	IEC 61000-4-2 Standard
ESD Protection – Air Discharge	V <sub>ESD_AIR</sub>	±30	kV	IEC 61000-4-2 Standard

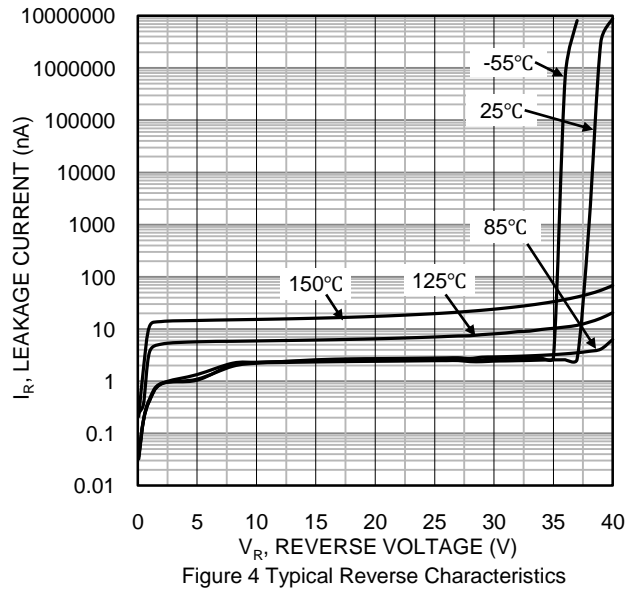
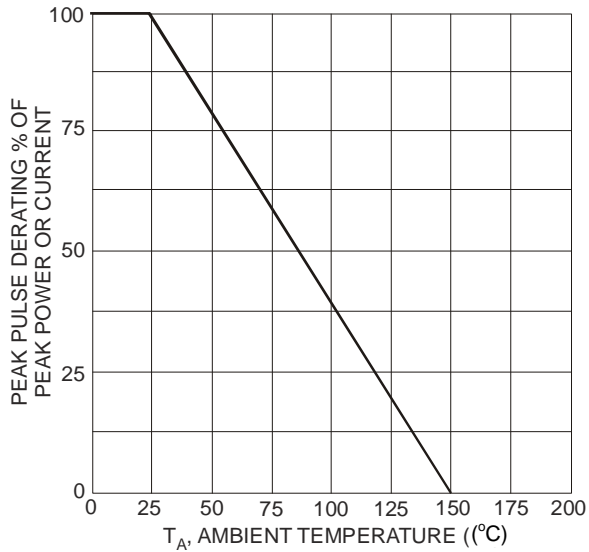
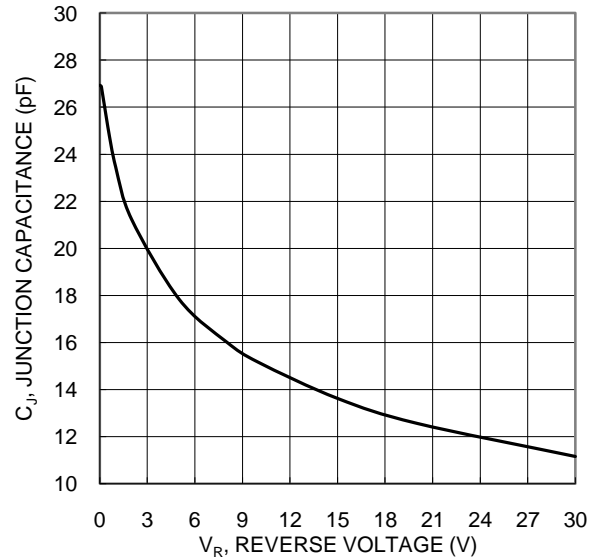
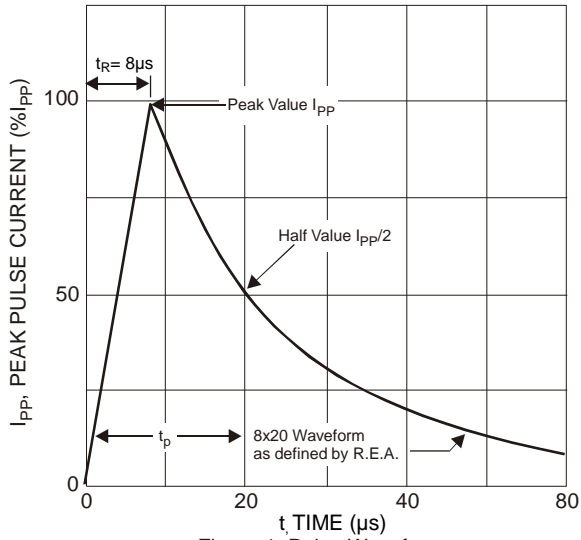
**Thermal Characteristics**

Characteristic	Symbol	Value	Unit
Package Power Dissipation (Note 6)	P <sub>D</sub>	300	mW
Thermal Resistance, Junction to Ambient (Note 6)	R <sub>θJA</sub>	417	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150	°C

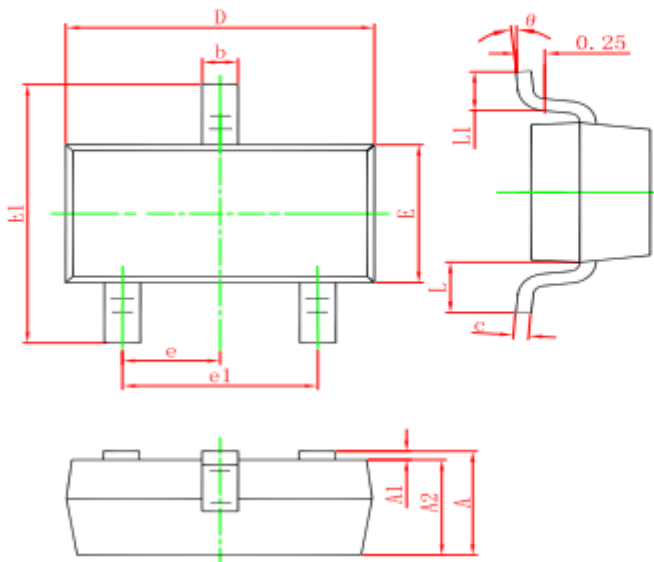
**Electrical Characteristics** (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Reverse Standoff Voltage	V <sub>RWM</sub>			32	V	
Channel Leakage Current (Note 7)	I <sub>RM</sub>		10	100	nA	V <sub>RWM</sub> = 32V
Clamping Voltage, Positive Transients	V <sub>CL</sub>			59	V	I <sub>PP</sub> = 5A, t <sub>p</sub> = 8/20μs, Figure 1
				66		I <sub>PP</sub> = 8A, t <sub>p</sub> = 8/20μs, Figure 1
Breakdown Voltage	V <sub>BR</sub>	35.6			V	I <sub>R</sub> = 1mA
Differential Resistance	R <sub>DIF</sub>		0.4		Ω	I <sub>R</sub> = 1A, t <sub>p</sub> = 8/20μs
Channel Input Capacitance	C <sub>T</sub>			30	pF	V <sub>R</sub> = 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.



**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 DUP3105SOQ-7	SOT-23	3000	Tape and reel