

## ULTRA LOW CAPACITANCE TVS DIODE ARRAY FOR QUADRI PROTECTION

### APPLICATIONS

- ◆ Cellular Handsets & Accessories
- ◆ Cordless Phones
- ◆ Personal Digital Assistants (PDA's)
- ◆ Portable Instrumentation
- ◆ Notebooks & Handhelds
- ◆ Digital Cameras
- ◆ MP3 Players

### IEC COMPATIBILITY

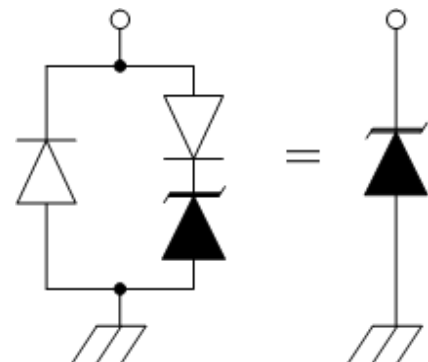
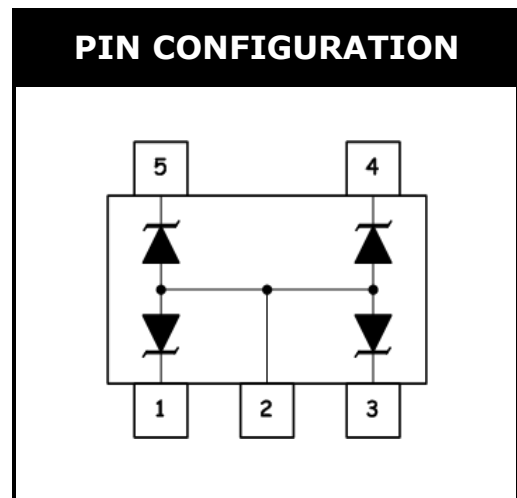
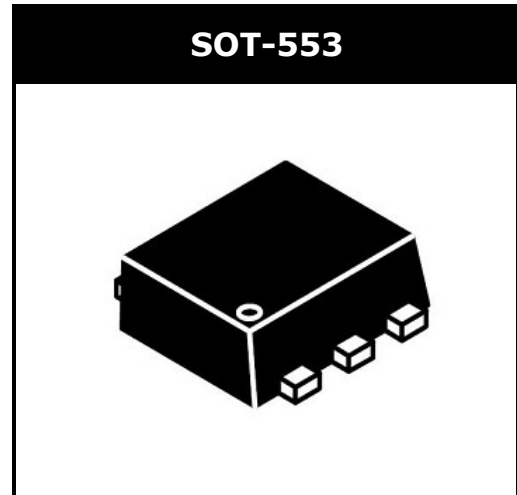
- ◆ IEC61000-4-2 (ESD)  $\pm 15\text{kV}$  (air),  $\pm 8\text{kV}$  (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50  $\eta$  s)

### FEATURES

- ◆ 100 Watts Peak Pulse Power per Line ( $t_p=8/20\mu\text{s}$ )
- ◆ Protects up to four I/O lines
- ◆ Ultra-small SC-89 package (1.6 x 1.6 x 0.55mm)  
requires less than 1.6mm<sup>2</sup> of PCB area
- ◆ Working voltages : 5.0V
- ◆ Low leakage current

### MECHANICAL CHARACTERISTICS

- ◆ SOT-553 Package
- ◆ Molding Compound Flammability Rating : UL 94V-0
- ◆ Weight 3 Milligrams (Approximate)
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Reel Size : 7 inch
- ◆ Lead Finish : Lead Free



## DEVICE CHARACTERISTICS

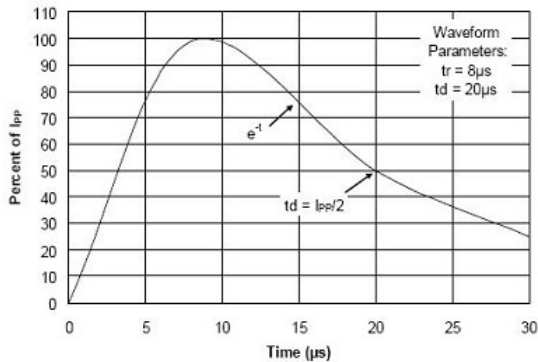
### MAXIMUM RATINGS (@ 25°C Unless Otherwise Specified)

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp=8/20μs waveform)	P <sub>PP</sub>	100	Watts
Lead Soldering Temperature	T <sub>L</sub>	260 (10 sec.)	°C
Operating Temperature Range	T <sub>J</sub>	-55 ~ 150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 ~ 150	°C

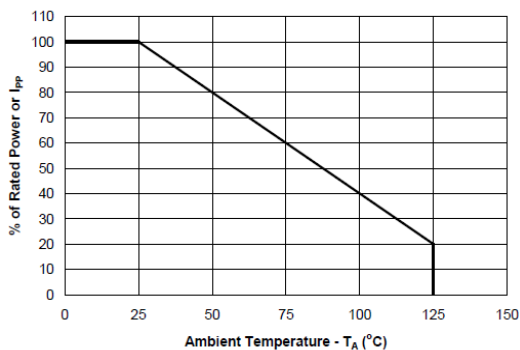
### ELECTRICAL CHARACTERISTICS PER LINE (@ 25°C Unless Otherwise Specified)

PART NUMBER	DEVICE MARKING	V <sub>RWM</sub>	V <sub>B</sub>	I <sub>T</sub>	V <sub>C</sub>	V <sub>C</sub>		I <sub>R</sub>	C <sub>T</sub>
		(V) (max.)	(V) (min.)	(mA)	@1A (max.)	(max.)	(@A)	(μA) (max.)	(pF) (typ.)
ULC0504T5	U7	5	6	1	9.8	17	2	1	1

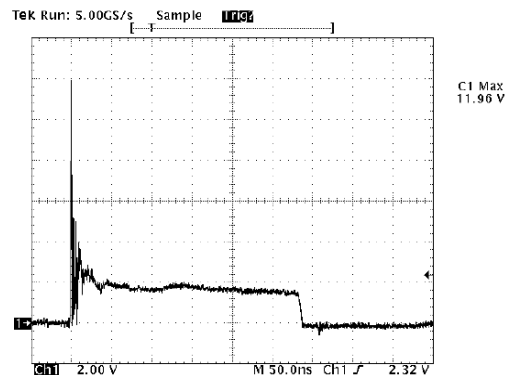
**Pulse Waveform**



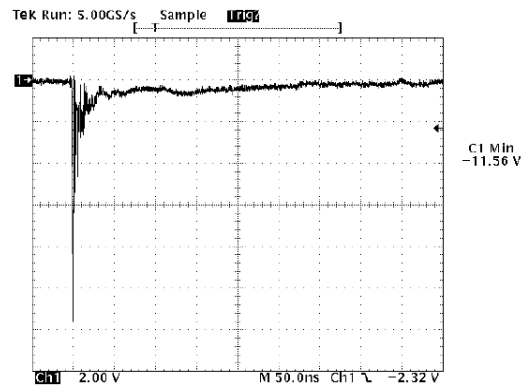
**Power Derating Curve**



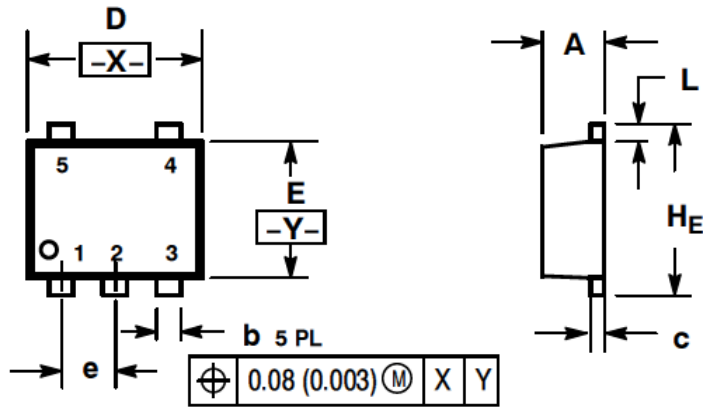
**ESD Clamping**  
(8kV Contact per IEC 61000-4-2)



**ESD Clamping**  
(-8kV Contact per IEC 61000-4-2)



## SOT-553 PACKAGE OUTLINE & DIMENSIONS



DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.50	0.55	0.60	0.020	0.022	0.024
b	0.17	0.22	0.27	0.007	0.009	0.011
c	0.08	0.13	0.18	0.003	0.005	0.007
D	1.50	1.60	1.70	0.059	0.063	0.067
E	1.10	1.20	1.30	0.043	0.047	0.051
e	0.50 BSC			0.020 BSC		
L	0.10	0.20	0.30	0.004	0.008	0.012
HE	1.50	1.60	1.70	0.059	0.063	0.067

### \* SOLDERING FOOTPRINT

