



# SM03 THRU SM36

## STANDARD CAPACITANCE TVS ARRAY / ESD ARRAY

### FEATURES

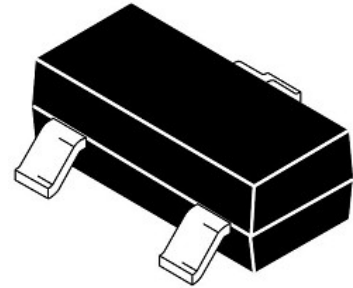
- 350 watts peak pulse power ( $t_p = 8/20\mu s$ )
- Transient protection for data & power lines to  
**IEC 61000-4-2 (ESD)  $\pm 15kV$  (air),  $\pm 8kV$  (contact)**  
**IEC 61000-4-4 (EFT) 40A (5/50ns)**  
**IEC 61000-4-5 (Lightning) 12A (8/20 $\mu s$ )**
- Protects one bidirectional line or two unidirectional lines
- Working Voltages: 3V, 5V, 12V, 15V, 24 and 36V
- Low clamping voltage
- Solid-state silicon avalanche technology



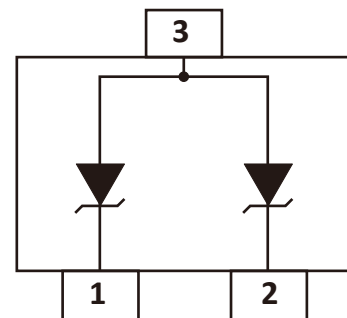
### APPLICATIONS

- Cellular Handsets and Accessories
- Portable Electronics
- Industrial Controls
- Set-Top Box
- Servers, Notebook, and Desktop PC

SOT-23



Pin Configuration



### Absolute Maximum Rating (T<sub>amb</sub>=25°C unless otherwise specified)

Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p = 8/20\mu s$ )	$P_{pk}$	350	Watts
Thermal Resistance, Junction to Ambient	$\theta_{JA}$	556	°C/W
Lead Soldering Temperature	$T_L$	260 (10 sec.)	°C
Operating Temperature	$T_J$	-55 to +125	°C
Storage Temperature	$T_{STG}$	-55 to +150	°C



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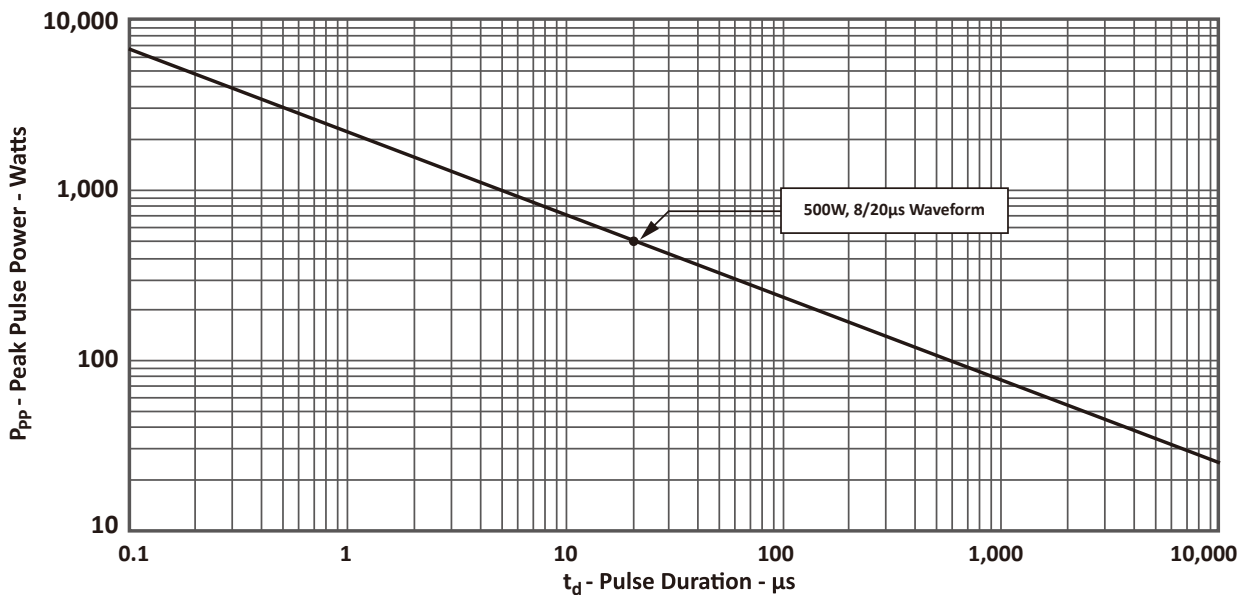
## STANDARD CAPACITANCE TVS ARRAY / ESD ARRAY

### DIVICE CHARACTERISTIC

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified								
PART NUMBER	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)	@1mA (max.)	@8/20μs (max.)	@A	(μA) (max.)	(pF) (max.)
SM03	3.3	4.0	1	6.5	10.9	20	100	400
SM05	5	6.0	1	9.8	13.5	17	10	300
SM08	8	8.5	1	13.4	16.9	12	5	250
SM12	12	13.3	1	19	25.9	11	1	150
SM15	15	16.7	1	24	30	10	1	100
SM24	24	26.7	1	43	49	7	1	88
SM36	36	40.0	1	51	76.8	5	1	60

### ● Electrical Characteristics Curve

**Peak Pulse Power VS Pulse Time**



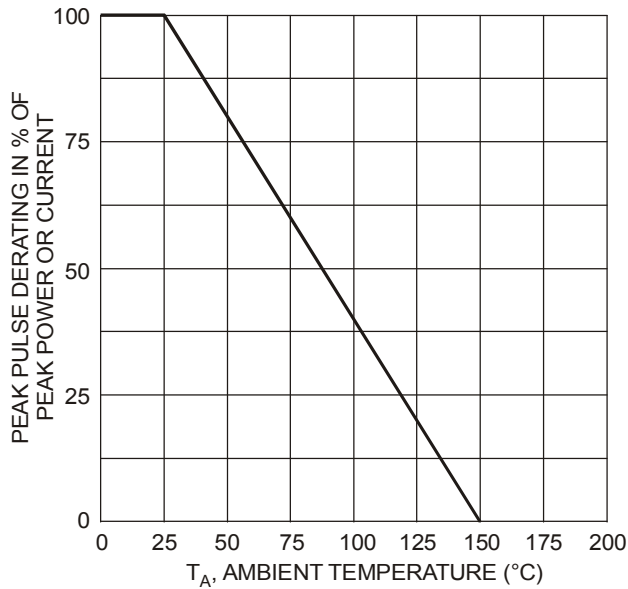


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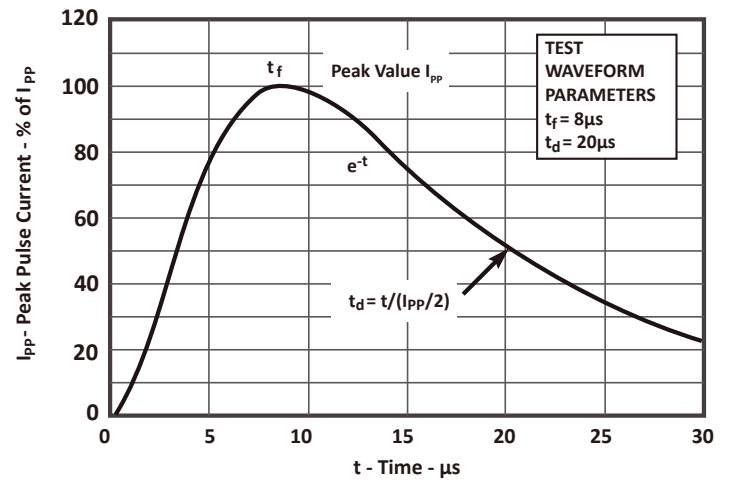
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### ● Electrical Characteristics Curve

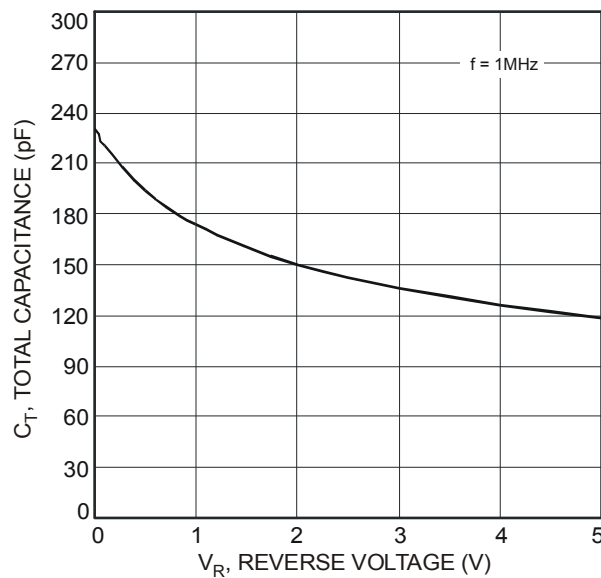
#### Power Derating Curve



#### Pulse Waveform



#### Typical Reverse Voltage VS Capacitance

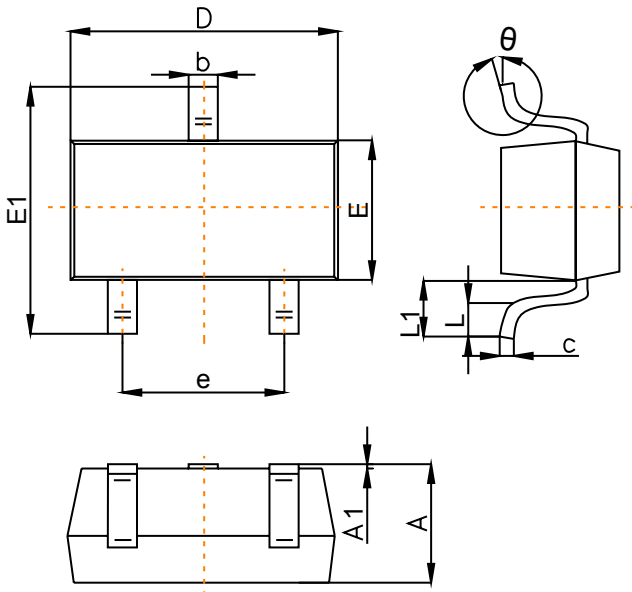




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## SOT-23 PACKAGE OUTLINE DIMENTION



Symbol	Dimensions In Millimeters		
	Min	Typ	Max
A	1.00		1.40
A1			0.10
b	0.35		0.50
c	0.10		0.20
D	2.70	2.90	3.10
E	1.40		1.60
E1	2.40		2.80
e		1.90	
L	0.10		0.30
L1	0.40		
$\theta$	0°		10°