



## SMAXXV

## TVS DIODE FOR ESD PROTECTION

### SURFACE MOUNT SILICON ZENER DIODE

#### DESCRIPTION

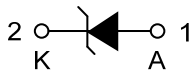
The UTC **SMAXXV** is a single line TVS diode, for ESD protection.

The UTC **SMAXXV** is protection in portable electronics applications.

#### FEATURES

- \* 50 Watts peak pulse power (tp=8/20µs)
- \* Transient protection for data lines to
  - ESD=8KV (Contact)
  - EFT=40A (tp=5/50ns)
  - Lightning=5A (tp=8/20µs)
- \* Small package for use in portable electronics.
- \* Suitable replacement for Multi-Layer Varistors in ESD protection applications.
- \* Protects on I/O or power line.
- \* Low clamping voltage.
- \* Low leakage current.

#### SYMBOL



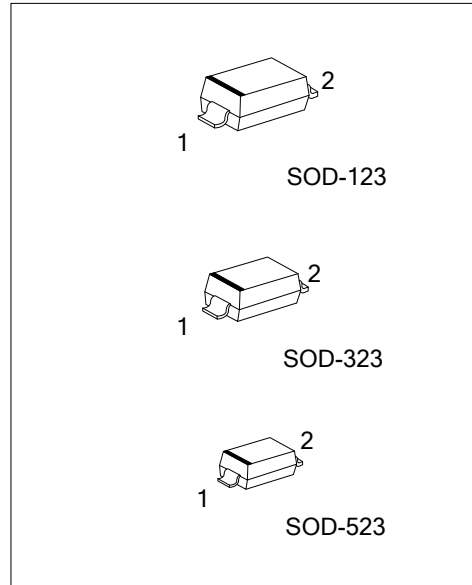
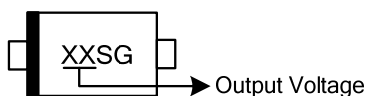
#### ORDERING INFORMATION

Ordering Number	Package	Pin Assignment		Packing
		1	2	
SMAXXG-CA2-R	SOD-123	A	K	Tape Reel
SMAXXG-CB2-R	SOD-323	A	K	Tape Reel
SMAXXG-CC2-R	SOD-523	A	K	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>SMAXXG-CC2-R</p> <ul style="list-style-type: none"> <li>(1)Packing Type</li> <li>(2)Package Type</li> <li>(3)Green Package</li> <li>(4)Output Voltage</li> </ul>	<ul style="list-style-type: none"> <li>(1) R: Tape Reel</li> <li>(2) CA2: SOD-123, CB2: SOD-323, CC2 : SOD-523</li> <li>(3) G: Halogen Free and Lead Free</li> <li>(4) refer to ELECTRICAL CHARACTERISTICS</li> </ul>
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#### MARKING



■ ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Peak Pulse Power (tp=8/20μs)		P <sub>PK</sub>	50	W
Peak Pulse Current (tp=8/20μs)		I <sub>PP</sub>	5	A
Junction Temperature		T <sub>J</sub>	-55~150	°C
Storage Temperature		T <sub>STG</sub>	-55~150	°C
ESD Discharge	IEC61000-4-2	Air Discharge	15	kV
		Contact Discharge	8	kV

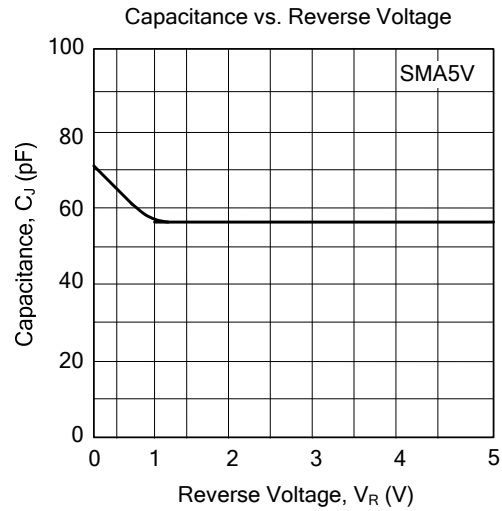
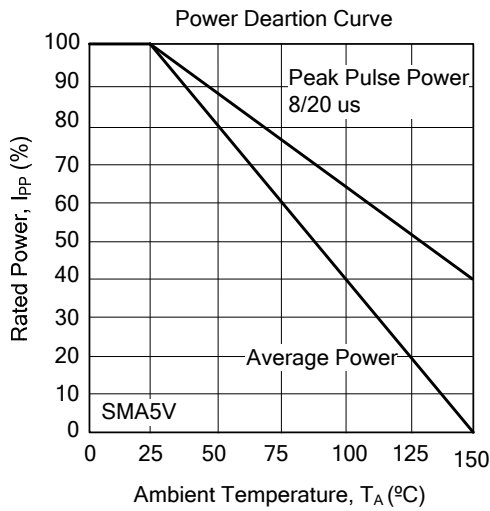
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C, unless otherwise specified)

(V<sub>F</sub> = 0.9V Max @ I<sub>F</sub> = 10mA for all types.)

Device	Marking Code	Test Current	Reverse Stand-Off Voltage	Reverse Breakdown Voltage V <sub>BR</sub> (V)	Reverse Leakage Current I <sub>R</sub> (μA)		Clamping Voltage V <sub>C</sub> (V)		Junction Capacitance C <sub>J</sub> (pF)		
		I <sub>T</sub> (mA)	V <sub>RWM</sub> (V)	Min	Max	V <sub>RWM</sub> (V)	Max (Typ.)	I <sub>PP</sub> (A)	Max	V <sub>R</sub> (V)	f (MHz)
SMA3V	3	1	3.3	4	20	3.3	10.9	5	100	0	1
SMA5V	5	1	5	6	5	5	14.5	5	80	0	1
SMA7V	7	1	7	7.5	0.15	7	22.7	8.8	85	0	1
SMA8V	8	1	8	8.5	5	8	13	5	70	0	1
SMA12V	12	1	12	13.3	5	12	17	5	60	0	1
SMA15V	15	1	15	16.6	5	15	22	5	50	0	1
SMA24V	24	1	24	26.7	5	24	32	3	25	0	1
SMA36V	36	1	36	40	5	36	55	1	20	0	1

### ■ TYPICAL CHARACTERISTICS



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