

# Thyristor Surge Protector

WEOS4-100/8AS

Document: W0101007

Version: C

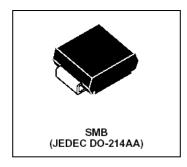
#### **Features**

- Bi-directional crowbar transient voltage protection
- High surge capability
- High off-state impedance, Low leakage current
- Low on-state voltage
- Short-circuit failure mode









#### **Main Application**

WAYON's thyristor surge protector devices are designed to help protect sensitive telecommunication equipment from the hazards caused by lightning, power contact, and power induction. These devices enable equipment to comply with various regulatory requirements including GR 1089, ITU K.20, K.21 and K.45, IEC 60950, UL 60950, and TIA-968-A (formerly known as FCC Part 68).

Typical application including:

- Central office switching equipment, Analog and digital linecards (xDSL, T1/E1, ISDN...).
- Customer Premises Equipment (CPE) such as phones, fax machines, modems, POS terminals, PBX systems and caller ID adjunct boxes.
- Primary protection modules including Main Distribution Frames (MDF), building entrance equipment and station protection modules.
- Access network equipment such as remote terminals, line repeaters, multiplexers, cross-connects, WAN equipment, Network Interface Devices (NID).
- Data lines and security systems.
- CATV line amplifiers and power inserters.
- Sprinkler systems.

#### Electrical Parameters (T<sub>amb</sub>=25°C)

	$V_{DRM}$	I <sub>DRM</sub>	V <sub>BO</sub>	I <sub>BO</sub>	V <sub>T</sub>	I <sub>T</sub>	Co	I <sub>H</sub>	I <sub>PP</sub>
Part Number	Max.	Max.	Max.	Max.	Max.	Max.	Тур.	Min.	10/1000µs
	V	μA	V	mA	V	Α	pF	mA	Α
WEOS4-100/8AS	6	5	25	800	4	2.2	110	50	100

VDRM: Stand-off voltage, is measured at IDRM.

IDRM: Leakage current at VDRM.

**V**во: Breakover voltage, is measured at 100V/µs.

**І**во: Breakover current.

Vт: On-state voltage.

IT: On-state current.

Co: Off-state capacitance.

**I**н: Holding current.

IPP: Peak pulse current, is a repetitive surge rating

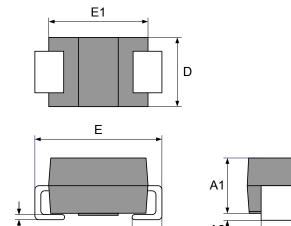
and is guaranteed for the life of the product.

#### **General Notes:**

- All measurements are made at an ambient temperature of 25 °C. IPP applies to -40 °C through +85 °C temperature range.
- Listed WEOS4 devices are bi-directional. All electrical parameters and surge ratings apply to forward and reverse polarities.
- Special voltage (VBO and VDRM) and holding current (IH) requirements are available up on request.
- Off-state capacitance is measured at 1 MHz with a 2 V bias.

### **Product Dimensions**

Ref. (mm)	Min.	Max.	
A1	1.90	2.45	
A2	0.05	0.20	
b	1.95	2.20	
С	0.15	0.41	
E	5.10	5.60	
E1	4.05	4.60	
D	3.30	3.95	
L	0.75	1.60	



Peak Value

Waveform = tr x td

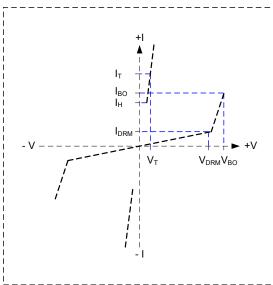
Half Value

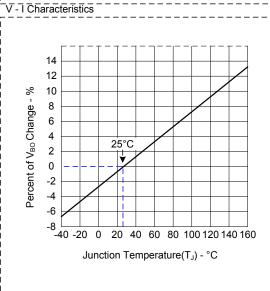
100

50

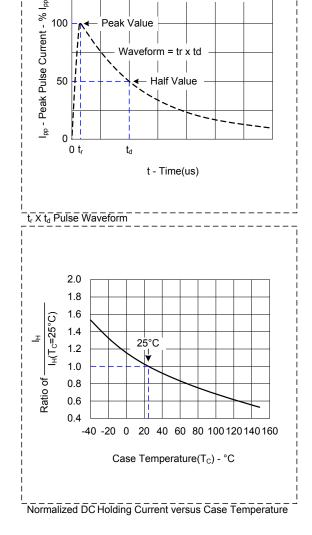
t<sub>r</sub>=rise time to peak value t<sub>d</sub>=decay time to half value

### Electrical Characteristics Curves





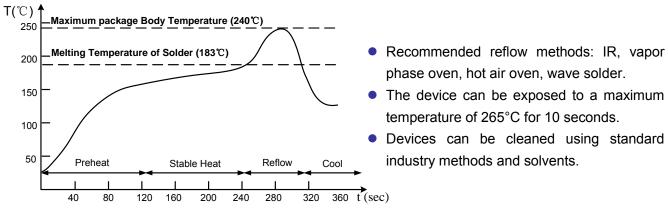
Normalized V<sub>BO</sub> Change versus Junction Temperature



#### Thermal Resistances

Symbol	Parameter	Value	Unit
Ts	Storage temperature range	-55 to +150	C
Tj	Maximum junction temperature	150	C

### Solder Reflow Recommendations

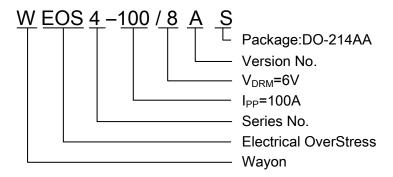


**Notes:** If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

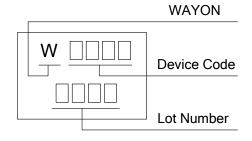
### **Agency Recognition**

UL c SGS RoHS

## Part Numbering System



#### Marking:



### Package Information

Tape & Reel: 2500pcs per reel.

Effectivity: Reference documents shall be the issue in effect on the date of invitation for bid.

Caution: Operation beyond the rated voltage or current may result in rupture electrical arcing or flame.