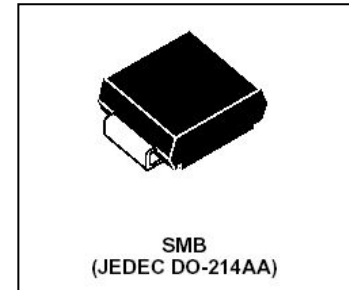


WEOS4-50/XXAS Series

Thyristor Surge Protector

Features

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



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.

Absolute Maximum Ratings (TA =25° C)

Parameter	Symbol	Value	Unit
Non-repetitive peak impulse current 10/1000 μ s (Telcordia GR-1089-CORE)	I _{PPSM}	50	A
Non-repetitive peak impulse Voltage 10/700 μ s (ITU-T K.20, K.21 & K.44, K.45)	V _{PPSM}	2500	V
Operating Junction Temperature range	T _J	-55 to + 150	°C
Storage Temperature range	T _s	-55 to + 150	°C

Part Number	V_{DRM}	I_{DRM}	V_{BO}	I_{BO}	V_T	I_T	C_o	I_H
	Max.	Max.	Max.	Max.	Max.	Max.	Typ.	Min.
	V	μA	V	mA	V	A	pF	mA
WEOS4-50/8AS	6	5	25	800	4	2.2	50	50
WEOS4-50/25AS	25	5	40	800	4	2.2	70	50
WEOS4-50/58AS	58	5	77	800	4	2.2	50	120
WEOS4-50/65AS	65	5	88	800	4	2.2	50	120
WEOS4-50/75AS	75	5	98	800	4	2.2	50	120
WEOS4-50/90AS	90	5	130	800	4	2.2	40	120
WEOS4-50/100AS	100	5	130	800	4	2.2	40	120
WEOS4-50/120AS	120	5	160	800	4	2.2	40	120
WEOS4-50/140AS	140	5	180	800	4	2.2	40	120
WEOS4-50/170AS	170	5	220	800	4	2.2	35	120
WEOS4-50/180AS	180	5	220	800	4	2.2	35	120
WEOS4-50/190AS	190	5	260	800	4	2.2	35	120
WEOS4-50/220AS	220	5	300	800	4	2.2	35	120
WEOS4-50/230AS	230	5	290	800	4	2.2	35	120
WEOS4-50/270AS	270	5	350	800	4	2.2	35	120
WEOS4-50/300AS	320	5	400	800	4	2.2	35	120
WEOS4-50/360AS	360	5	460	800	4	2.2	30	120
WEOS4-50/400AS	400	5	540	800	4	2.2	30	120
WEOS4-50/440AS	440	5	600	800	4	2.2	30	120

Electrical Parameters (T=25°C)

V_{DRM} : Stand-off voltage, is measured at I_{DRM} .

I_{DRM} : Leakage current at V_{DRM} .

V_{BO} : Breakover voltage, is measured at 100V/ μs .

I_{BO} : Breakover current.

V_T : On-state voltage.

I_T : On-state current.

C_o : Off-state capacitance.

I_H : Holding current.

I_{PP} : Peak pulse current, is a repetitive surge rating and is guaranteed for the life of the product.

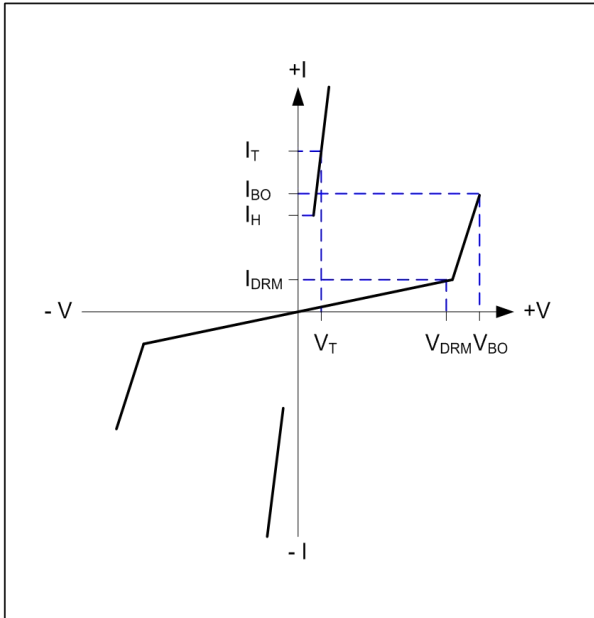
V_{ppsm} : Peak pulse voltage, is a repetitive surge rating and is guaranteed for the life of the product.

General Notes:

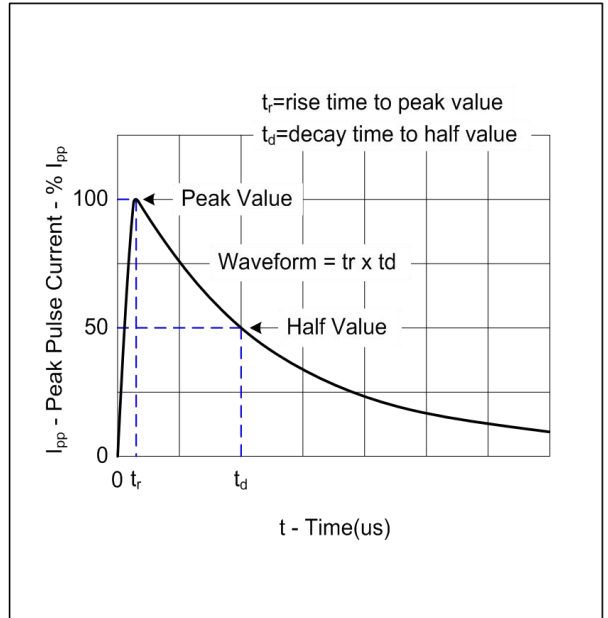
- All measurements are made at an ambient temperature of 25 °C. I_{PP} applies to -40 °C through +85 °C temperature range.
- WEOS4 devices are bi-directional. All electrical parameters and surge ratings apply to forward and reverse polarities.

- Special voltage (V_{BO} and V_{DRM}) and holding current (I_H) requirements are available up on request. Off-state capacitance is measured at 1 MHz with a 2 V bias

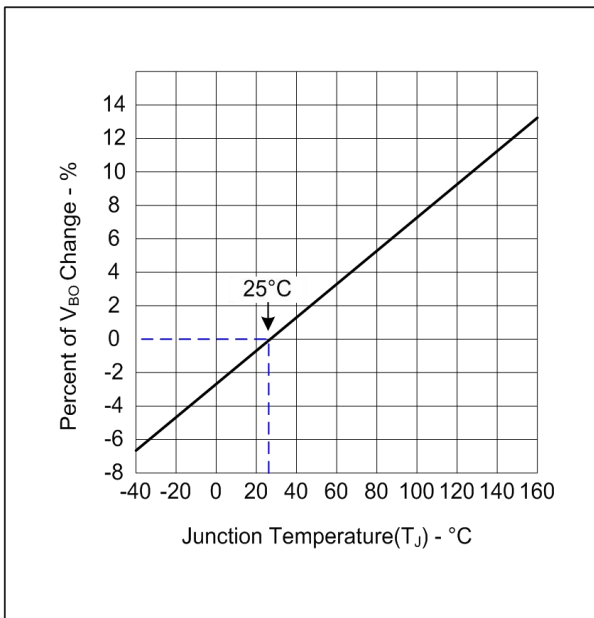
Electrical Characteristics Curves



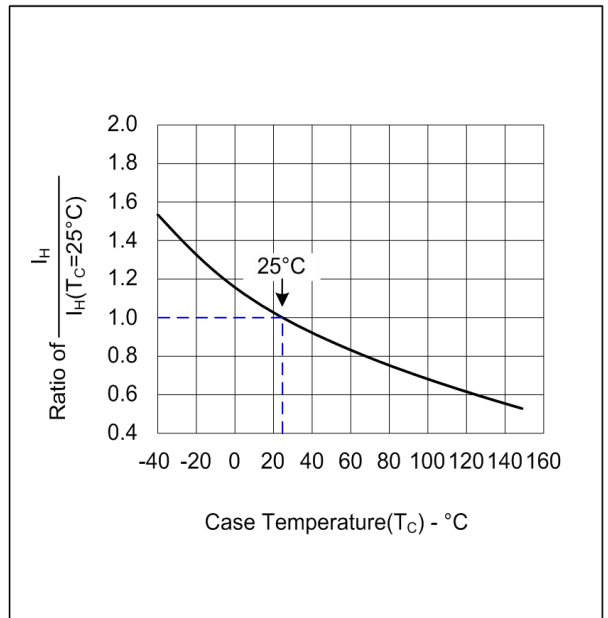
V - I Characteristics



$t_r \times t_d$ Pulse Waveform



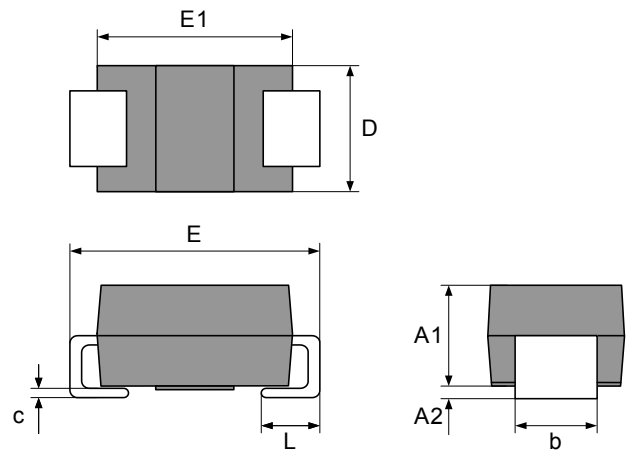
Normalized V_{BO} Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature

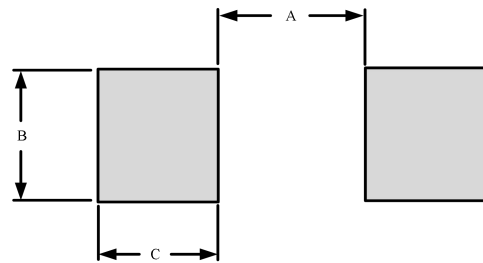
Product Dimensions

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



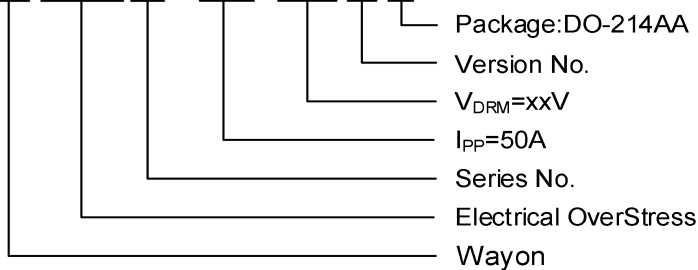
Recommended Solder Pad Layout

DIM(mm)	MILLIMETERS
A	2.20
B	2.80
C	2.20

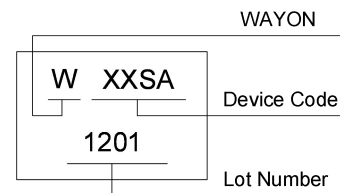


Part Numbering System

WEOS4-50/XXAS



Marking:



Package Information

Package Type	Description	Quantity (pcs)	Standard
SMB	Tape & Reel Pack	2500	EIA-481-D

Contact Information

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