

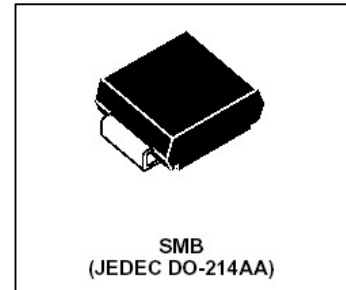


WES1006SMC

Thyristor Surge Protector

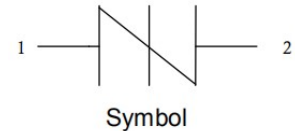
Features

- Integrated Bi-directional thyristor for Surge Protection
- High surge capability
- High off-state impedance
- Low leakage current
- Short-circuit failure mode



Main Application

- Data lines and security systems.
- CATV line amplifiers and power inserters.
- Sprinkler systems.



| Parameter | Symbol | Value | Unit |
|--|------------|-------|------|
| Non-repetitive peak impulse current 10/1000 μ s (Telcordia GR-1089-CORE) | I_{PPSM} | 100 | A |
| Non-repetitive peak impulse Voltage 10/700 μ s (ITU-T K.20, K.21 & K.44,K.45) | V_{PPSM} | 6000 | V |

Electrical Parameters ($T_A=25^\circ\text{C}$)

| Part Number | V_{DRM} | I_{DRM} | V_{BO} | I_{BO} | V_T | I_T | I_H | C_O |
|-------------|-----------|-----------|----------|----------|-------|-------|-------|-------|
| | Max. | Max. | Max. | Max. | Max. | Max. | Min. | Typ. |
| | V | μ A | V | mA | V | A | mA | pF |
| WES1006SMC | 6 | 5 | 25 | 800 | 4 | 2.2 | 15 | 30 |

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/ μ s.

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.

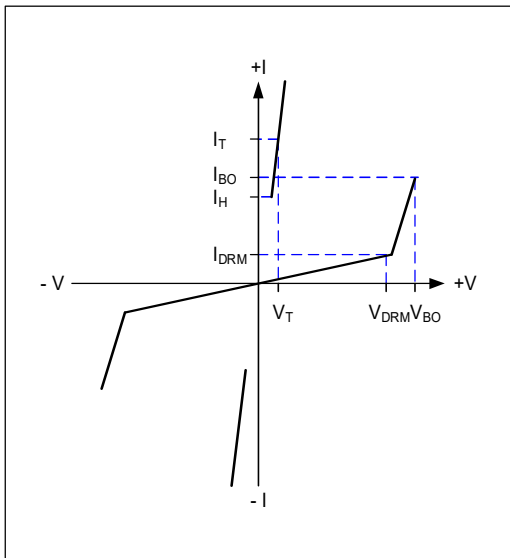
General Notes:

- All measurements are made at an ambient temperature of 25 °C. IPP applies to -40 °C through +85 °C temperature range.
- Listed WES 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.

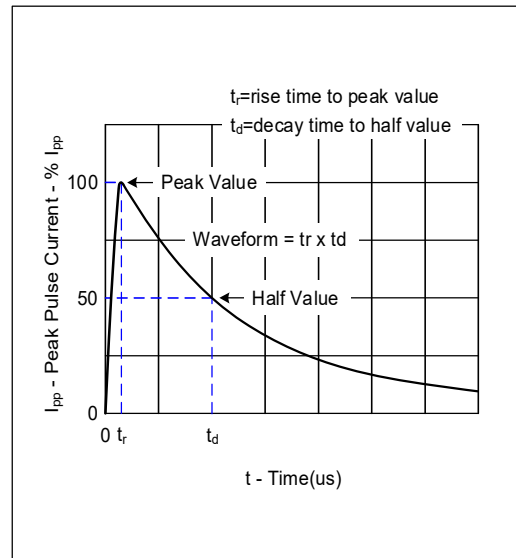
Thermal Resistances

| Symbol | Parameter | Value | Unit |
|--------|------------------------------|-------------|------|
| Ts | Storage temperature range | -55 to +150 | °C |
| Tj | Maximum junction temperature | -40 to +125 | °C |

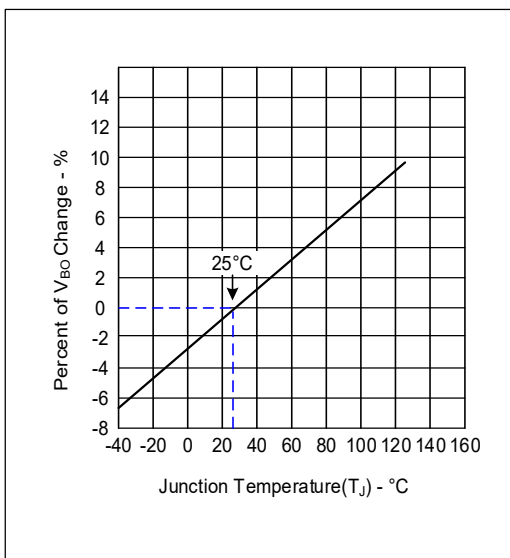
Electrical Characteristics Curves



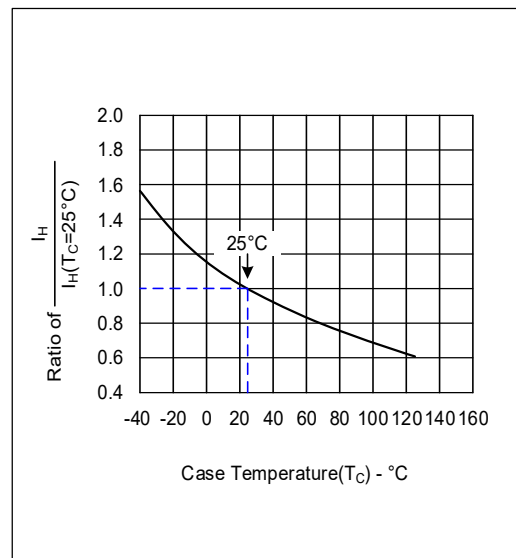
V - I Characteristics



t_r X t_d Pulse Waveform



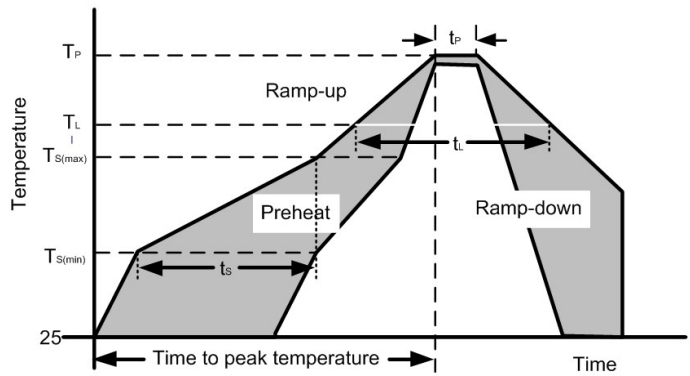
Normalized V_{BO} Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature

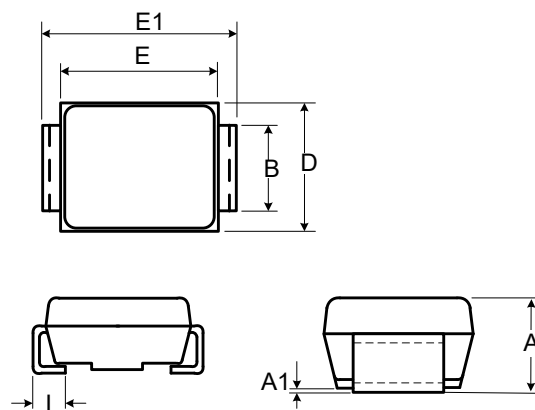
Soldering Parameters

| Reflow Condition | | |
|--|----------------------------------|-------------------------|
| Pre Heat | Temperature Min ($T_{s(min)}$) | 150°C |
| | Temperature Max ($T_{s(max)}$) | 200°C |
| | Time (min to max) (t_s) | 60-190 s |
| Average ramp up rate (Liquidus Temp) (T_L) to peak | | 3°C/s max |
| Ts(max) to TL - Ramp-up Rate | | 3°C/s max |
| Reflow | Temperature (T_L) (Liquidus) | 217°C |
| | Temperature (t_L) | 60-150 s |
| Peak Temperature (T_P) | | 260 ^{+0/-5} °C |
| Time within actual peak Temperature (t_p) | | 20-40 s |
| Ramp-down Rate | | 5°C/s max |
| Time 25°C to peak Temperature (T_P) | | 8 minutes Max. |
| Do not exceed | | 260°C |



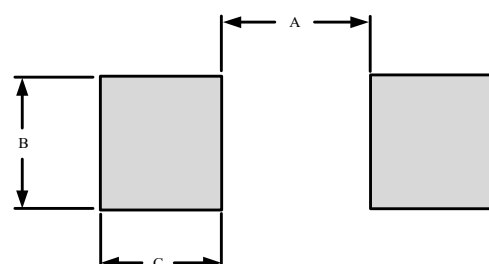
Product Dimensions

| Ref. (mm) | Min. | Max. |
|-----------|-------|-------|
| A | 2.130 | 2.600 |
| A1 | - | 0.300 |
| B | 1.900 | 2.200 |
| E | 4.100 | 4.750 |
| E1 | 5.210 | 5.590 |
| D | 3.300 | 3.940 |
| L | 0.760 | 1.520 |

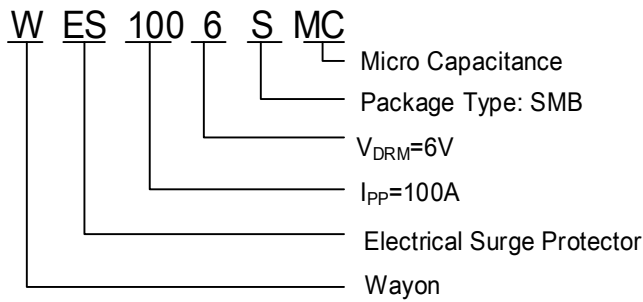


Recommended Solder Pad Layout

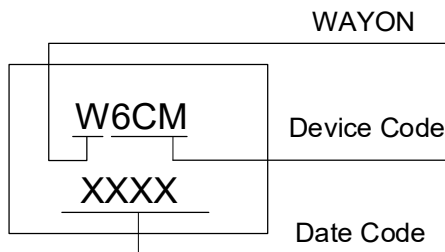
| DIM(mm) | MILLIMETERS |
|---------|-------------|
| A | 2.74 |
| B | 2.26 |
| C | 2.16 |



Part Numbering System and Marking



Marking:



Package Information

| Package Type | Description | Quantity (pcs) |
|---------------|------------------|------------------|
| SMB(DO-214AA) | Tape & Reel Pack | 2500 |

Contact Information

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For additional information, please contact your local Sales Representative.

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*Specifications are subject to change without notice.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.*

单击下面可查看定价，库存，交付和生命周期等信息

[>>WAY-ON\(维安\)](#)