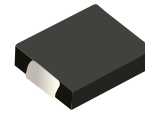
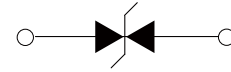


FEATURES

- | Low profile package
- | Ideal for automated placement
- | 8000 Watt peak pulse power capability with a 10/1000µs waveform
- | For surface mounted applications to optimize board space
- | Excellent clamping capability
- | Very fast response time
- | Low incremental surge resistance



DO-214AB(SMC)



Schematic Symbol

APPLICATIONS

- | Power supply protection
- | Automotive application
- | Industrial application
- | Power management

APPROVALS

| | |
|-------------|------------------------------------|
| RoHS | Compliance with 2011/65/EU |
| HF | Compliance with IEC61249-2-21:2003 |

MAXIMUM RATINGS (T_A=25°C)

| Parameter | Symbo | Value | Unit |
|---|------------------|-------|-------|
| Peak Pulse Power Dissipation on 10/1000us waveform (Note1, Note2). | P _{PPM} | 8000 | Watts |
| Steady State Power Dissipation at T _L =50°C, Lead lengths.375"(9.5mm) (Note2) | P _D | 6.5 | Watts |

- Notes :** 1.Non-repetitive current pulse,T_A=25°C.
 2.Mounted on 5.0mm*5.0mm (0.03mm thick) Copper Pads to each terminal.

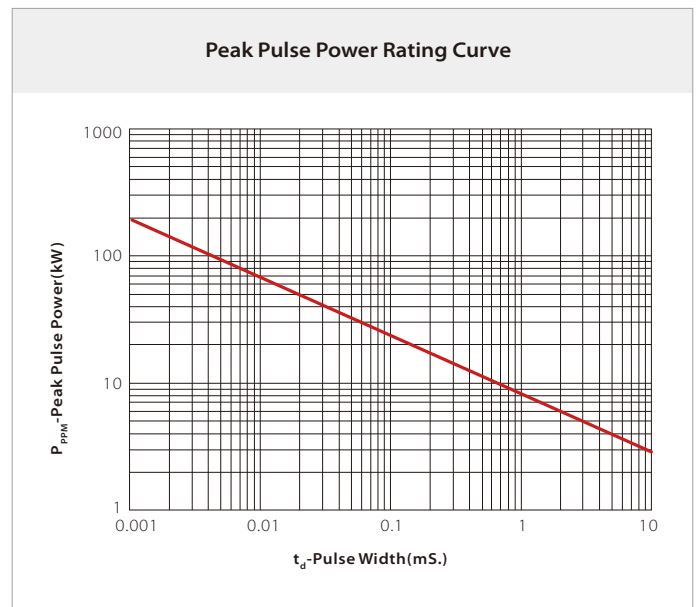
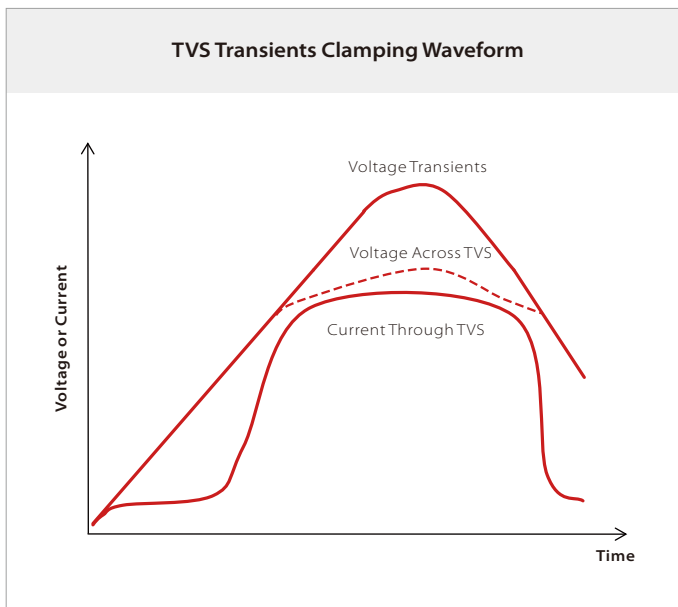
THERMAL CONSIDERATIONS

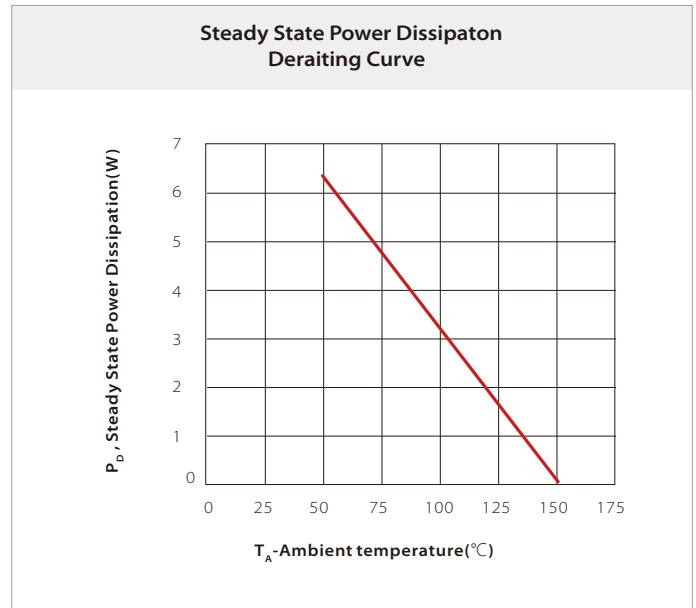
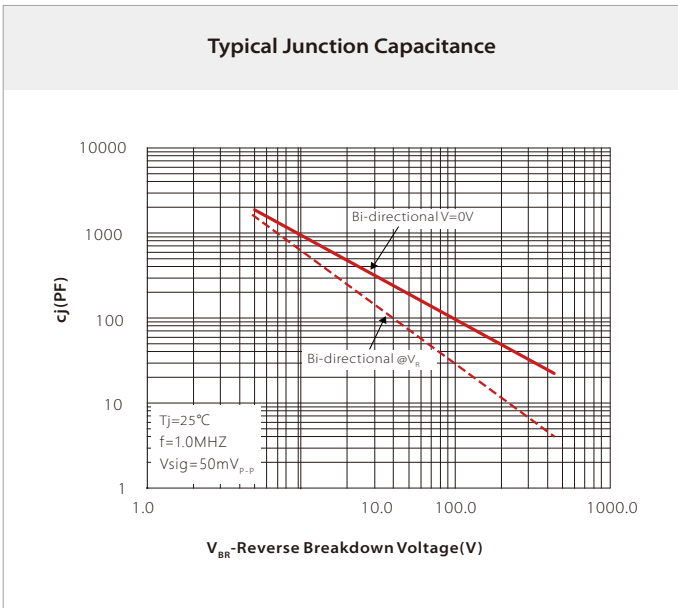
| Parameter | Symbol | Value | Unit |
|--|------------------|-------------|------|
| Operating Junction Temperature | T _J | -55 to +150 | °C |
| Storage Temperature Range | T _{STG} | -55 to +150 | °C |
| Junction to Ambient on printed circuit | R _{θJA} | 75 | °C/W |

ELECTRICAL CHARACTERISTICS (T_A=25°C)

| Part Number | Device Marking Code | Reverse Stand-off Voltage | Breakdown Voltage Min.@I _T | Breakdown Voltage Max.@I _T | Test Current | Maximum Clamping Voltage @I _{pp} | Peak Pulse Current | Reverse Leakage @V _{RWM} |
|-------------|---------------------|---------------------------|---------------------------------------|---------------------------------------|---------------------|---|---------------------|-----------------------------------|
| | | V _{RWM} (V) | V _{BR} (V) | V _{BR} (V) | I _T (mA) | V _C (V) | I _{pp} (A) | I _R (μA) |
| SVC800B75 | 8BGR | 75.0 | 83.3 | 92.10 | 1 | 121.0 | 66.78 | 5 |

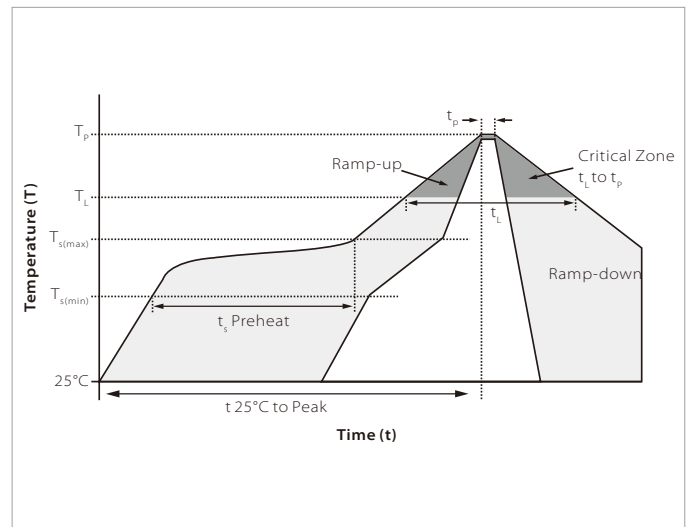
CHARACTERISTIC CURVES



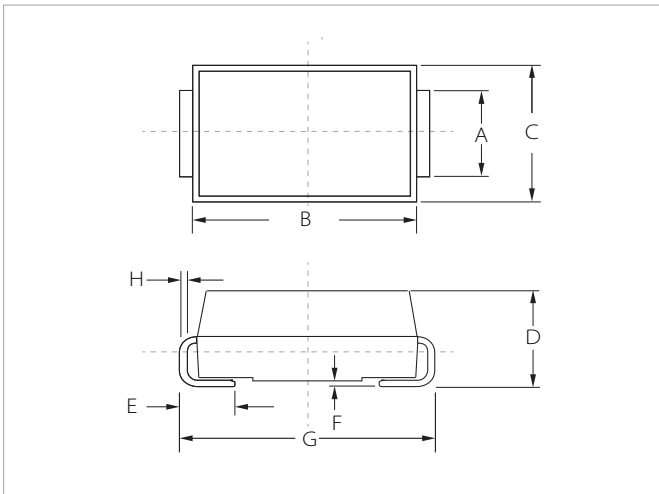


SOLDERING PARAMETERS

| Reflow Condition | | Lead-free assembly |
|---|----------------------------------|--------------------------------------|
| Pre Heat | Temperature Max ($T_{s(min)}$) | 150 $^\circ\text{C}$ |
| | Temperature Max ($T_{s(max)}$) | 200 $^\circ\text{C}$ |
| | Time (min to max) (t_2) | 60 – 180 secs |
| Average ramp up rate (Liquidus Temp (T_L) to peak) | | 3 $^\circ\text{C}/\text{second}$ max |
| $T_{s(max)}$ to T_L - Ramp-up Rate | | 3 $^\circ\text{C}/\text{second}$ max |
| Reflow | Temperature (T_L) (Liquidus) | 217 $^\circ\text{C}$ |
| | Time (min to max) (t_1) | 60 – 150 seconds |
| Peak Temperature (T_p) | | 260 $^\circ\text{C}$ |
| Time within 5 $^\circ\text{C}$ of actual peak Temperature (t_p) | | 20 – 40 seconds |
| Ramp-down Rate | | 6 $^\circ\text{C}/\text{second}$ max |
| Time 25 $^\circ\text{C}$ to peak Temperature (T_p) | | 8 minutes max. |
| Do not exceed | | 260 $^\circ\text{C}$ |

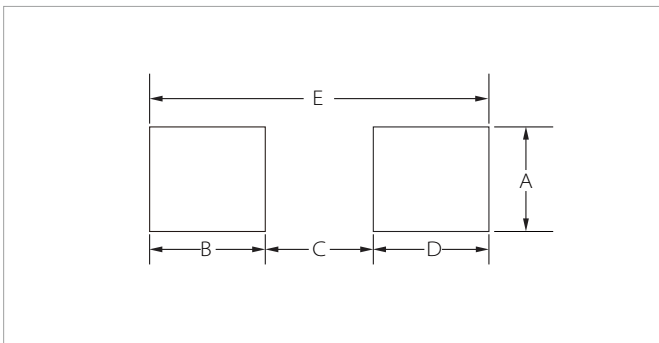


DO-214AB(SMC) PACKAGE INFORMATION



| Ref. | Millimeters | | Inches | |
|------|-------------|------|--------|-------|
| | Min. | Max. | Min. | Max. |
| A | 2.80 | 3.20 | 0.110 | 0.126 |
| B | 6.60 | 7.20 | 0.260 | 0.283 |
| C | 5.70 | 6.10 | 0.224 | 0.240 |
| D | 2.15 | 2.75 | 0.085 | 0.108 |
| E | 1.00 | 1.60 | 0.039 | 0.063 |
| F | 0.02 | 0.20 | 0.000 | 0.008 |
| G | 7.60 | 8.00 | 0.299 | 0.315 |
| H | 0.15 | 0.30 | 0.006 | 0.012 |

RECOMMENDED PAD LAYOUT DIMENSIONS



| Ref. | Millimeters | | Inches | |
|------|-------------|------|----------|-------|
| | Min. | Max. | Min. | Max. |
| A | 3.30 | - | 0.129 | - |
| B | 2.40 | - | 0.094 | - |
| C | - | 4.20 | - | 0.165 |
| D | 2.40 | - | 0.094 | - |
| E | 8.20REF | | 0.323REF | |

ORDERING INFORMATION

| Part Number | Component Package | QTY/Reel | Reel Size |
|-------------|-------------------|----------|-----------|
| SVC800B75 | DO-214AB(SMC) | 3000PCS | 13" |

Headquarters

No.3387 Shendu Road Pujiang
I&E Park
Minhang Shanghai China
201000

Hotline

400-021-5756

Web

<https://www.semiware.com>

Sales Center

Tel: 86-21-3463-7458
Email: sales18@semiware.com

Customer Service

Tel: 86-21-5484-1001
Email: sales17@semiware.com

Technical Support

Tel: 86-21-3463-7654
Email: fae01@semiware.com

Complaint & Suggestions

Tel: 86-21-3463-7172
Ext: 8868
Email: cs03@semiware.com

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