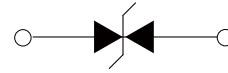


FEATURES

- | Low profile package
- | Ideal for automated placement
- | 400 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-214AC(SMA)



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 | Symbol | Value | Unit |
|---|------------------|-------|-------|
| Peak Pulse Power Dissipation on 10/1000µs waveform (Note1, Note2). | P _{PPM} | 400 | Watts |
| Steady State Power Dissipation at T _L =75°C, Lead lengths.375"(9.5mm) (Note2) | P _D | 3.3 | Watts |

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

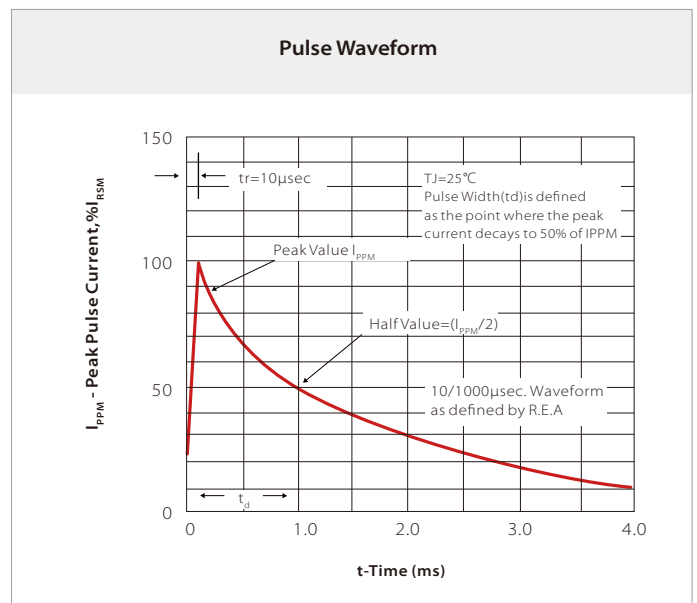
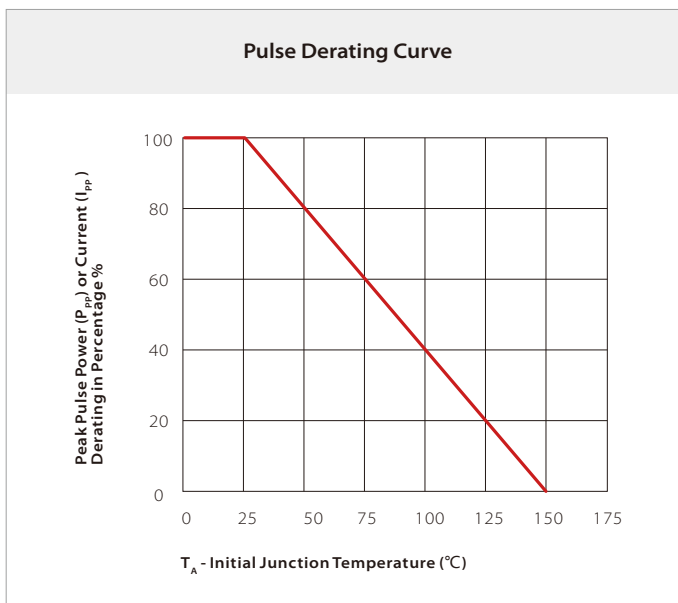
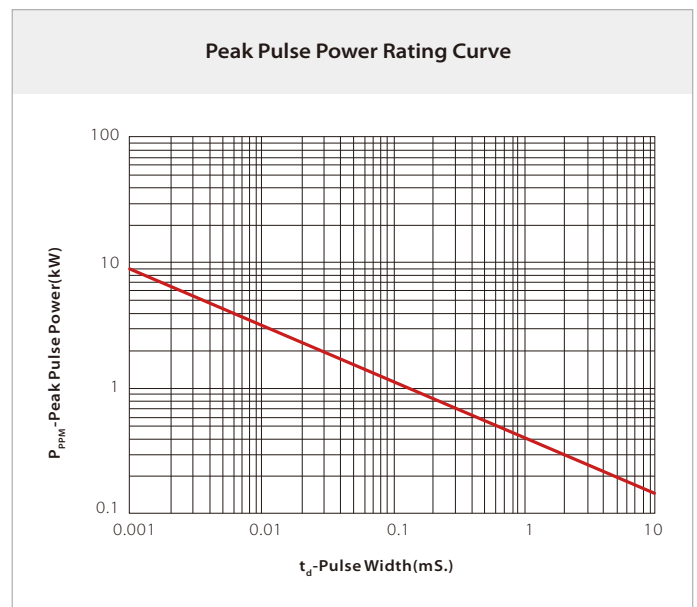
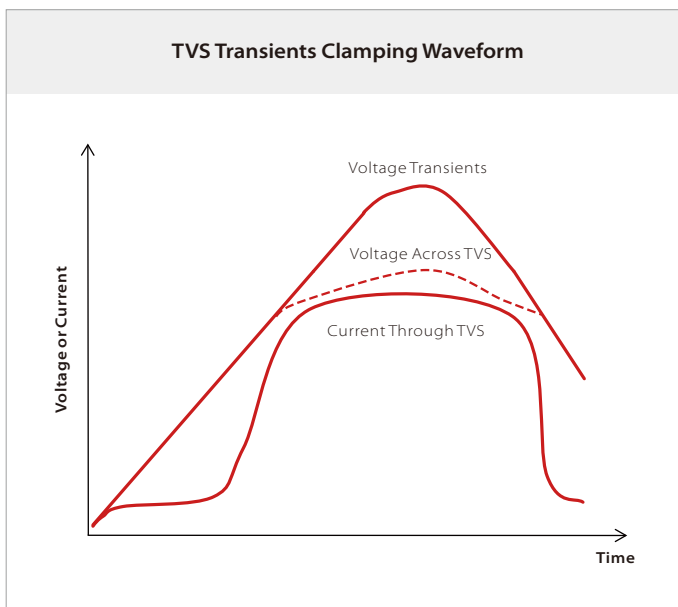
THERMAL CONSIDERATIONS

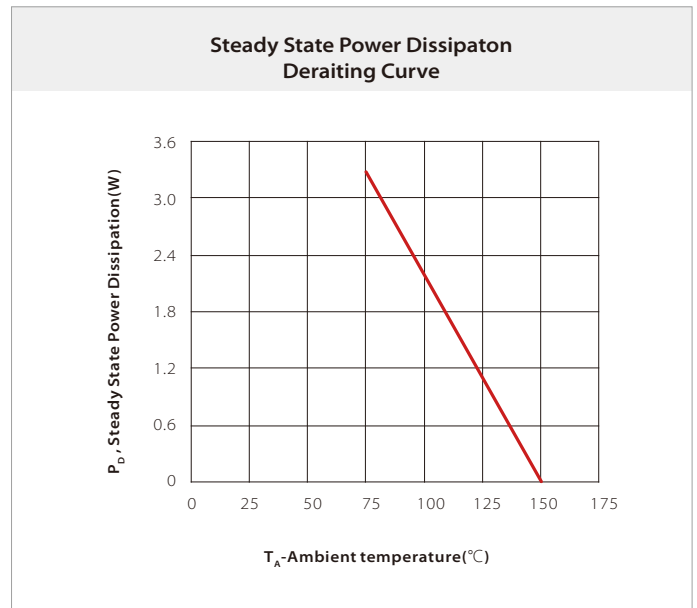
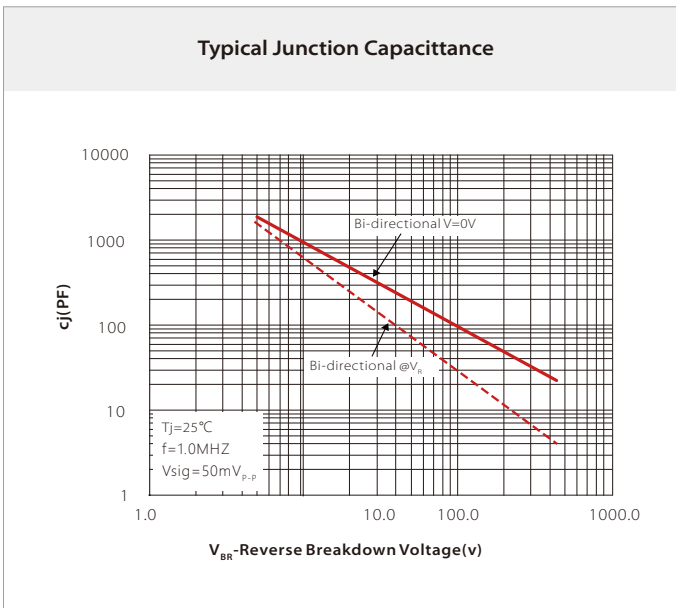
| Parameter | Symbol | Value | Unit |
|--|------------------|-------------|------|
| Operating Junction Temperature | T _J | -55 to +150 | °C |
| Storage Temperature Range | T _{STG} | -55 to +150 | °C |
| Junction to Ambient on printed circuit | R _{θJA} | 120 | °C/W |

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 (uA) |
| SVA40B6.0 | WG | 6.0 | 6.67 | 7.37 | 10 | 10.3 | 38.8 | 800 |

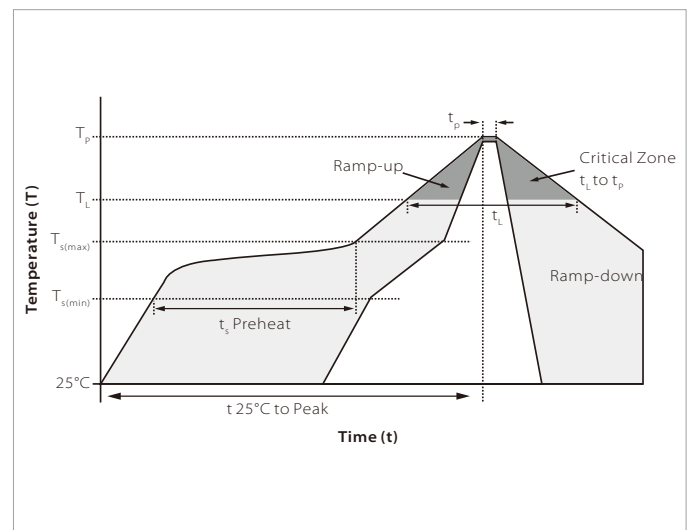
CHARACTERISTIC CURVES



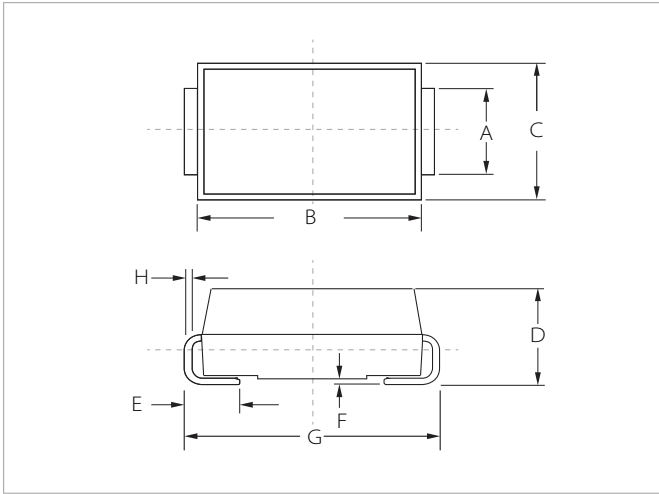


SOLDERING PARAMETERS

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

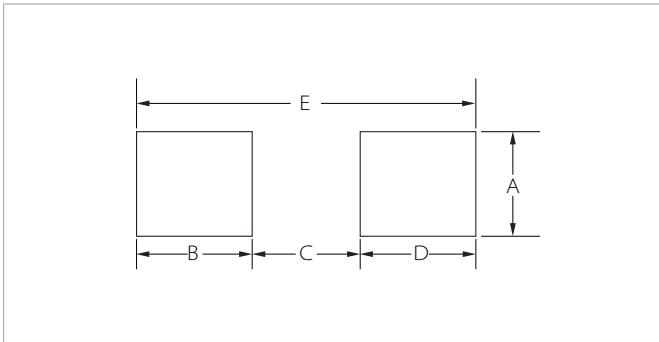


DO-214AC(SMA) PACKAGE INFORMATION



| Ref. | Millimeters | | Inches | |
|------|-------------|------|--------|-------|
| | Min. | Max. | Min. | Max. |
| A | 1.20 | 1.60 | 0.047 | 0.063 |
| B | 4.20 | 4.60 | 0.165 | 0.181 |
| C | 2.60 | 2.80 | 0.102 | 0.110 |
| D | 2.10 | 2.40 | 0.083 | 0.094 |
| E | 0.76 | 1.52 | 0.030 | 0.060 |
| F | 0.02 | 0.20 | 0.001 | 0.008 |
| G | 4.85 | 5.25 | 0.191 | 0.207 |
| H | 0.15 | 0.30 | 0.006 | 0.012 |

RECOMMENDED PAD LAYOUT DIMENSIONS



| Ref. | Millimeters | | Inches | |
|------|-------------|------|----------|-------|
| | Min. | Max. | Min. | Max. |
| A | 1.63 | - | 0.064 | - |
| B | 1.45 | - | 0.057 | - |
| C | - | 2.80 | - | 0.090 |
| D | 1.45 | - | 0.057 | - |
| E | 5.28REF | | 0.208REF | |

ORDERING INFORMATION

| Part Number | Component Package | QTY/Reel | Reel Size |
|-------------|-------------------|----------|-----------|
| SVA40B6.0 | DO-214AC(SMA) | 5000PCS | 13" |

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