

FEATURES

- | Excellent capability of absorbing transient surge
- | Quick response to surge voltage
- | Eliminates over voltage caused by fast rising transients
- | Solid-state silicon technology, non degenerative



SMA(DO-214AC)



Schematic Symbol

APPLICATIONS

- | Audio/Video line
- | Network and telecom
- | Data lines and security systems
- | Serial ports

APPROVALS

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

ELECTRICAL CHARACTERISTICS

| Part Number | Marking | V_{DRM} | V_S | V_T | I_{DRM} | I_S | I_T | I_H | C_o |
|-------------|---------|-----------|----------|----------|-----------------|-------|----------|-----------|----------|
| | | Min. (V) | Max. (V) | Max. (V) | Max. (μ A) | mA | Max. (A) | Min. (mA) | Typ.(pF) |
| P0060TB | P006B | 6 | 15 | 4 | 5 | 800 | 2.2 | 40 | 80 |
| P0080TB | P008B | 6 | 25 | 4 | 5 | 800 | 2.2 | 40 | 80 |
| P0150TB | P015B | 15 | 25 | 4 | 5 | 800 | 2.2 | 40 | 80 |
| P0220TB | P022B | 15 | 30 | 4 | 5 | 800 | 2.2 | 40 | 80 |
| P0300TB | P03B | 25 | 40 | 4 | 5 | 800 | 2.2 | 40 | 80 |
| P0640TB | P06B | 58 | 77 | 4 | 5 | 800 | 2.2 | 120 | 60 |
| P0720TB | P07B | 65 | 88 | 4 | 5 | 800 | 2.2 | 120 | 60 |
| P0900TB | P09B | 75 | 98 | 4 | 5 | 800 | 2.2 | 120 | 55 |
| P1100TB | P11B | 90 | 130 | 4 | 5 | 800 | 2.2 | 120 | 55 |
| P1300TB | P13B | 120 | 160 | 4 | 5 | 800 | 2.2 | 120 | 55 |
| P1500TB | P15B | 140 | 180 | 4 | 5 | 800 | 2.2 | 120 | 60 |
| P1800TB | P18B | 170 | 220 | 4 | 5 | 800 | 2.2 | 120 | 60 |
| P2300TB | P23B | 190 | 260 | 4 | 5 | 800 | 2.2 | 120 | 55 |
| P2600TB | P26B | 220 | 300 | 4 | 5 | 800 | 2.2 | 120 | 50 |
| P3100TB | P31B | 275 | 350 | 4 | 5 | 800 | 2.2 | 120 | 45 |
| P3500TB | P35B | 320 | 400 | 4 | 5 | 800 | 2.2 | 120 | 40 |
| P4200TB | P42B | 400 | 520 | 4 | 5 | 800 | 2.2 | \leq 50 | 40 |

SURGE RATINGS

| Part Number | I_{PP} 2x10us | I_{PP} 8x20us | I_{PP} 10x560us | I_{PP} 10x1000us | V_{PP} 10x700us | I_{TSM} 60Hz | d_i/d_t |
|----------------------|--------------------|--------------------|----------------------|-----------------------|----------------------|-------------------|-----------|
| | (A) | (A) | (A) | (A) | (V) | (A) | (A/us) |
| P0060TB Thru P4200TB | 250 | 250 | 100 | 80 | 4000 | 25 | 500 |

THERMAL CONSIDERATIONS

| Symbol | Parameter | Value | Unit |
|-----------------|--|-------------|------|
| $R_{\theta JA}$ | Junction to Ambient on printed circuit | 90 | °C/W |
| T_J | Operating Junction Temperature | -55 to +150 | °C |
| T_{STG} | Storage Temperature Range | -55 to +150 | °C |

RATINGS AND CHARACTERISTIC CURVES ($T_A=25^\circ\text{C}$)



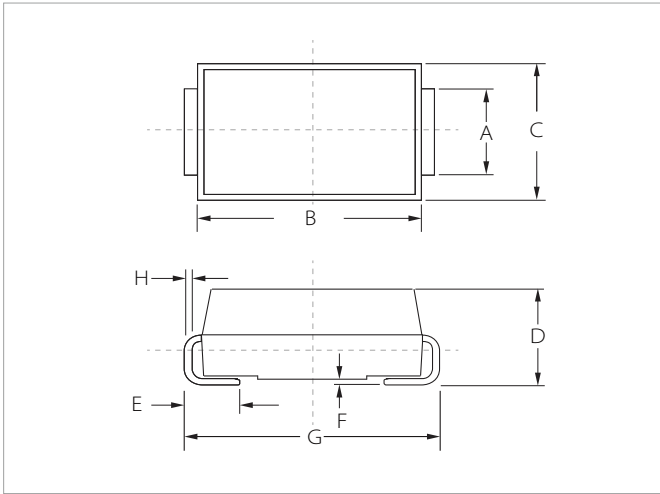


SOLDERING PARAMETERS

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

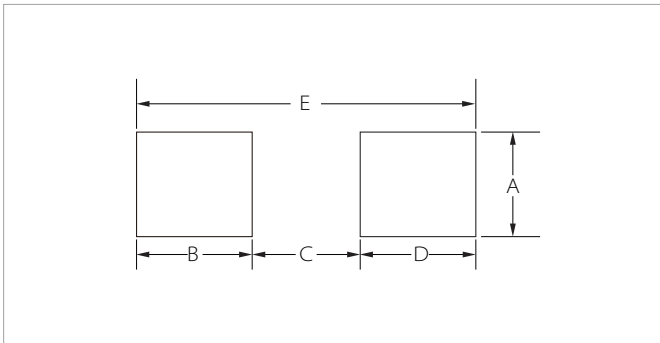


DO-214AC(SMA) PACKAGE INFORMATION



| 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 |
|-------------|-------------------|----------|-----------|
| PxxxxTB | DO-214AC(SMA) | 5000PCS | 13" |

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