

FEATURES

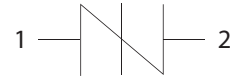
- | Excellent capability of absorbing transient surge
- | Quick response to surge voltage
- | Eliminates over voltage caused by fast rising transients
- | Solid-state silicon technology, non degenera



SOD-123FL



Marking



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 | V_{DRM} | V_S | V_T | I_{DRM} | I_S | I_T | I_H | C_o | C_o |
|-------------|-----------|----------|----------|-----------------|-------|----------|-----------|----------|----------|
| | Min. (V) | Max. (V) | Max. (V) | Max. (μ A) | mA | Max. (A) | Min. (mA) | Min.(pF) | Max.(pF) |
| P0080FA-S | 6.0 | 25.0 | 4.0 | 5.0 | 800.0 | 2.2 | 40.0 | 15.0 | 35.0 |

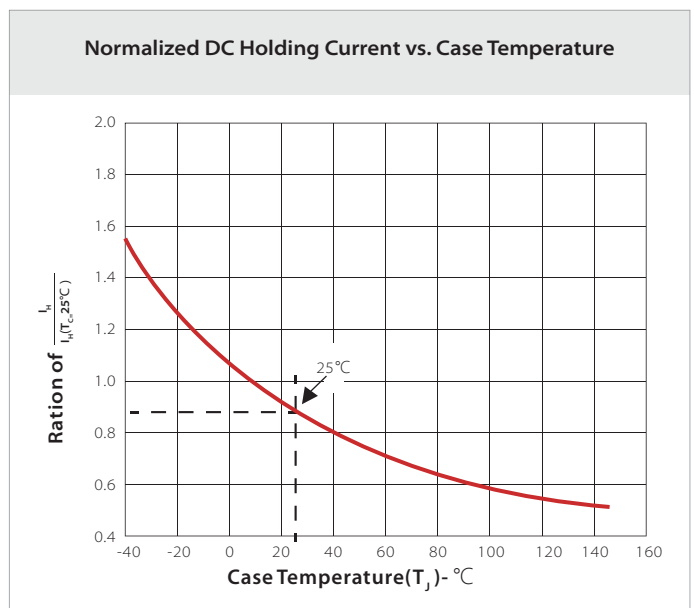
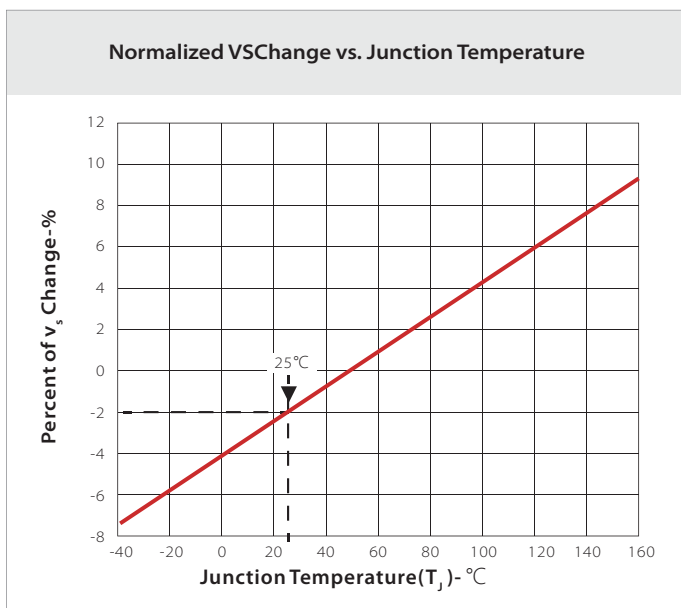
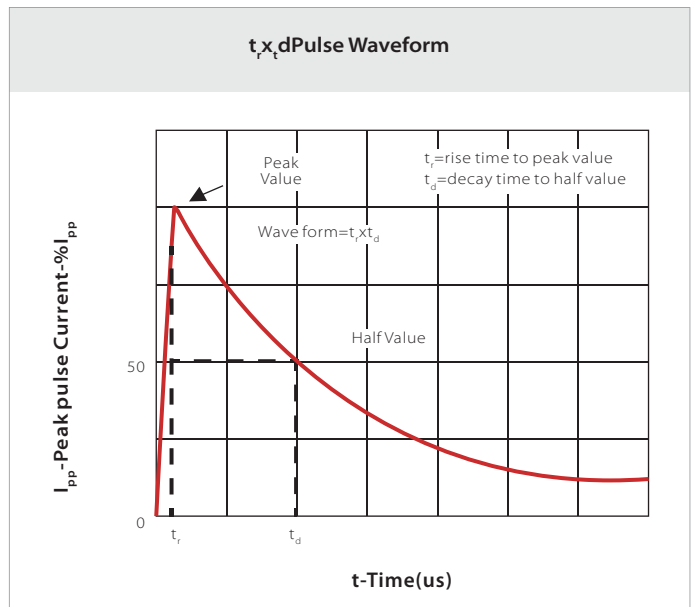
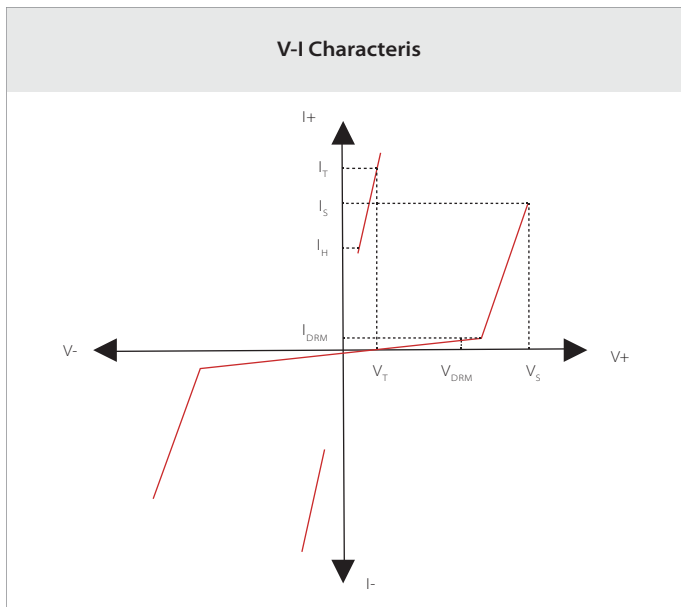
SURGE RATINGS

| Part Number | V_{PP} 10x700us | I_{PP} 5x310us |
|-------------|----------------------|---------------------|
| | (V) | (A) |
| P0080FA-S | 2000 | 50 |

THERMAL CONSIDERATIONS

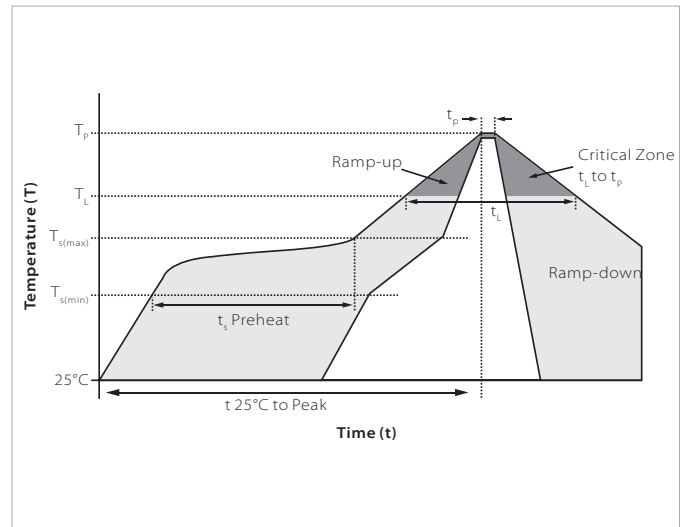
| Symbol | Parameter | Value | Unit |
|-----------------|--|-------------|------|
| $R_{\theta JA}$ | Junction to Ambient on printed circuit | 220 | °C/W |
| T_J | Operating Junction Temperature | -55 to +150 | °C |
| T_{STG} | Storage Temperature Range | -55 to +150 | °C |

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

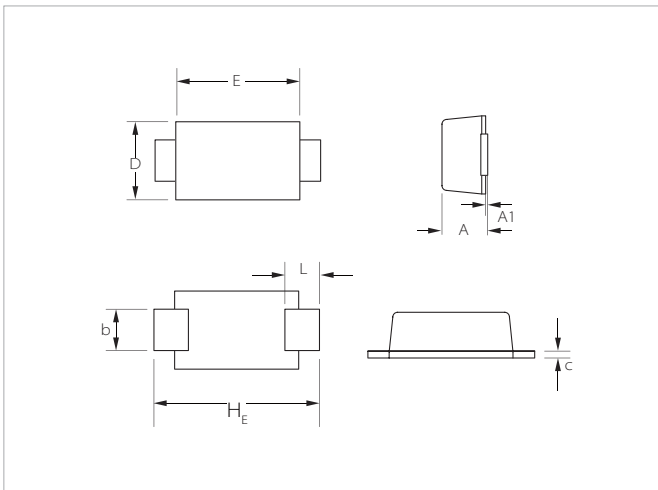


SOLDERING PARAMETERS

| 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_l) | 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 |

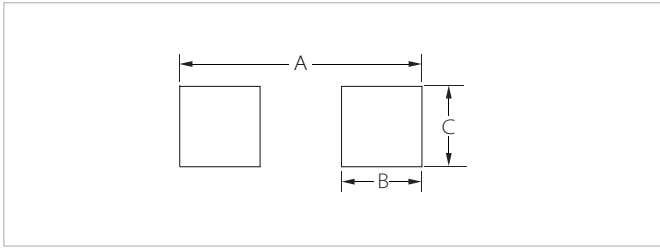


SOD-123FL PACKAGE INFORMATION



| Ref. | Millimeters | | Inches | |
|----------------|-------------|------|--------|-------|
| | Min. | Max. | Min. | Max. |
| A | 0.95 | 1.45 | 0.037 | 0.057 |
| A1 | 0.00 | 0.10 | 0.000 | 0.004 |
| b | 0.70 | 1.20 | 0.028 | 0.047 |
| c | 0.05 | 0.30 | 0.002 | 0.012 |
| D | 1.50 | 2.00 | 0.059 | 0.079 |
| E | 2.50 | 2.90 | 0.098 | 0.114 |
| L | 0.35 | 0.90 | 0.014 | 0.035 |
| H _E | 3.40 | 3.90 | 0.134 | 0.154 |

RECOMMENDED PAD LAYOUT DIMENSIONS



| Ref. | Millimeters | Inches |
|------|-------------|--------|
| A | 4.20 | 0.165 |
| B | 1.50 | 0.059 |
| C | 1.20 | 0.047 |

ORDERING INFORMATION

| Part Number | Component Package | QTY/Reel | Reel Size |
|-------------|-------------------|----------|-----------|
| P0080FA-S | SOD-123FL | 3000PCS | 7" |

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