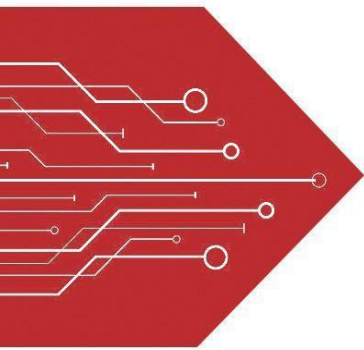


MSKSEMI

SEMICONDUCTOR



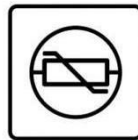
ESD



TVS



TSS



MOV



GDT



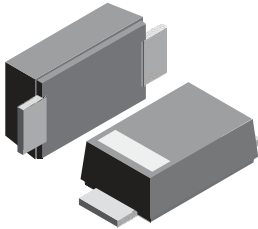
PLED

Product data sheet

POWER: 200Watts

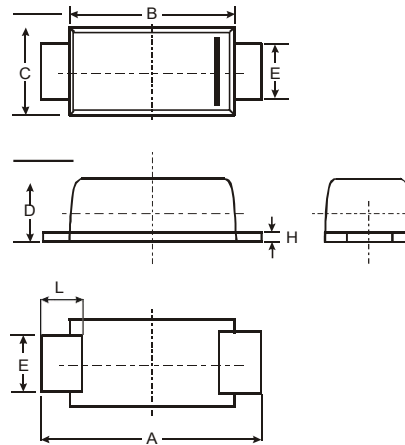
Features

- For surface mounted applications
- Low profile package
- Low incremental surge resistance, excellent clamping capability
- 200W peak pulse power capability with a 10/1000 μ s wave form, repetition rate (duty cycle): 0.01%
- High temperature soldering guaranteed: 260 °C/10 seconds, at terminals



Mechanical Data

- Case: JEDEC SOD-123FL, molded plastic over passivated chip
- Polarity: Color band denotes positive end (cathode) except for bidirectional
- Mounting position: Any
- Weight: 0.006 ounces, 0.02 gram



| SOD-123FL | | | |
|----------------------|------|------|------|
| Dim | Min | Max | Typ |
| A | 3.50 | 3.80 | 3.65 |
| B | 2.60 | 2.90 | 2.75 |
| C | 1.70 | 1.90 | 1.80 |
| D | 1.00 | 1.30 | 1.15 |
| E | 0.80 | 1.10 | 0.95 |
| H | 0.12 | 0.20 | 0.16 |
| L | 0.07 | 0.09 | 0.08 |
| All Dimensions in mm | | | |

Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise specified

| Characteristic | Symbol | Value | Unit |
|--|-----------------|-------------|--------|
| Maximum P_{PK} Dissipation (PW - 10/1000 μ s) | P_{PK} | 200 | W |
| Maximum P_{PK} Dissipation @ $T_a = 25^\circ\text{C}$ (PW - 8/10 μ s) (Note 2) | P_{PK} | 1000 | W |
| DC Power Dissipation @ $T_a = 25^\circ\text{C}$ (Note 3) | P_D | 385 | mW |
| Derate above 25 °C | | 4.0 | mW/ °C |
| Thermal Resistance, Junction to Ambient (Note 3) | $R_{\theta JA}$ | 325 | °C/W |
| Thermal Resistance, Junction to Lead (Note 3) | $R_{\theta JL}$ | 26 | °C/W |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | -55 to +150 | °C |

Notes :

- (1) Non-repetitive current pulse at $T_a = 25^\circ\text{C}$, per waveform of Fig. 2.
- (2) Non-repetitive current pulse at $T_a = 25^\circ\text{C}$, per waveform of Fig. 5.
- (3) Mounted with recommended minimum pad size, DC board FR4.

| TYPE | | Marking | | Reverse Stand-Off Voltage | Breakdown Voltage Min. @I _T | Breakdown Voltage Max. @ I _T | Test Current | Reverse Leakage @V _{RWM} | Maximum Clamping Voltage @I _{PP} | Peak Pulse Current |
|----------|-----------|---------|------|---------------------------|--|---|---------------------|-----------------------------------|---|---------------------|
| (Uni) | (Bi) | (Uni) | (Bi) | V _{RWM} (V) | V _{BR MIN} (V) | V _{BR MAX} (V) | I _T (mA) | I _R (uA) | V _C (V) | I _{PP} (A) |
| SMFJ5.0A | SMFJ5.0CA | KE | FE | 5.0 | 6.40 | 7.00 | 10 | 400 | 9.2 | 21.7 |
| SMFJ6.0A | SMFJ6.0CA | KG | FG | 6.0 | 6.67 | 7.37 | 10 | 400 | 10.3 | 19.4 |
| SMFJ6.5A | SMFJ6.5CA | KK | FK | 6.5 | 7.22 | 7.98 | 10 | 250 | 11.2 | 17.9 |
| SMFJ7.0A | SMFJ7.0CA | KM | FM | 7.0 | 7.78 | 8.60 | 10 | 100 | 12.0 | 16.7 |
| SMFJ7.5A | SMFJ7.5CA | KP | FP | 7.5 | 8.33 | 9.21 | 1.0 | 50 | 12.9 | 15.5 |
| SMFJ8.0A | SMFJ8.0CA | KR | FR | 8.0 | 8.89 | 9.83 | 1.0 | 25 | 13.6 | 14.7 |
| SMFJ8.5A | SMFJ8.5CA | KT | FT | 8.5 | 9.44 | 10.4 | 1.0 | 10 | 14.4 | 13.9 |
| SMFJ9.0A | SMFJ9.0CA | KV | FV | 9.0 | 10.0 | 11.1 | 1.0 | 5.0 | 15.4 | 13.0 |
| SMFJ10A | SMFJ10CA | KX | FX | 10 | 11.1 | 12.3 | 1.0 | 2.5 | 17.0 | 11.8 |
| SMFJ11A | SMFJ11CA | KZ | FZ | 11 | 12.2 | 13.5 | 1.0 | 2.5 | 18.2 | 11.0 |
| SMFJ12A | SMFJ12CA | LE | HE | 12 | 13.3 | 14.7 | 1.0 | 2.5 | 19.9 | 10.1 |
| SMFJ13A | SMFJ13CA | LG | HG | 13 | 14.4 | 15.9 | 1.0 | 1.0 | 21.5 | 9.3 |
| SMFJ14A | SMFJ14CA | LK | HK | 14 | 15.6 | 17.2 | 1.0 | 1.0 | 23.2 | 8.6 |
| SMFJ15A | SMFJ15CA | LM | HM | 15 | 16.7 | 18.5 | 1.0 | 1.0 | 24.4 | 8.2 |
| SMFJ16A | SMFJ16CA | LP | HP | 16 | 17.8 | 19.7 | 1.0 | 1.0 | 26.0 | 7.7 |
| SMFJ17A | SMFJ17CA | LR | HR | 17 | 18.9 | 20.9 | 1.0 | 1.0 | 27.6 | 7.2 |
| SMFJ18A | SMFJ18CA | LT | HT | 18 | 20.0 | 22.1 | 1.0 | 1.0 | 29.2 | 6.8 |
| SMFJ20A | SMFJ20CA | LV | HV | 20 | 22.2 | 24.5 | 1.0 | 1.0 | 32.4 | 6.2 |
| SMFJ22A | SMFJ22CA | LX | HX | 22 | 24.4 | 26.9 | 1.0 | 1.0 | 35.5 | 5.6 |
| SMFJ24A | SMFJ24CA | LZ | HZ | 24 | 26.7 | 29.5 | 1.0 | 1.0 | 38.9 | 5.1 |
| SMFJ26A | SMFJ26CA | ME | JE | 26 | 28.9 | 31.9 | 1.0 | 1.0 | 42.1 | 4.8 |
| SMFJ28A | SMFJ28CA | MG | JG | 28 | 31.1 | 34.4 | 1.0 | 1.0 | 45.4 | 4.4 |
| SMFJ30A | SMFJ30CA | MK | JK | 30 | 33.3 | 36.8 | 1.0 | 1.0 | 48.4 | 4.1 |
| SMFJ33A | SMFJ33CA | MM | JM | 33 | 36.7 | 40.6 | 1.0 | 1.0 | 53.3 | 3.8 |
| SMFJ36A | SMFJ36CA | MP | JP | 36 | 40.0 | 44.2 | 1.0 | 1.0 | 58.1 | 3.4 |
| SMFJ40A | SMFJ40CA | MR | JR | 40 | 44.4 | 49.1 | 1.0 | 1.0 | 64.5 | 3.1 |
| SMFJ43A | SMFJ43CA | MT | JT | 43 | 47.8 | 52.8 | 1.0 | 1.0 | 69.4 | 2.9 |
| SMFJ45A | SMFJ45CA | MV | JV | 45 | 50.0 | 55.3 | 1.0 | 1.0 | 72.7 | 2.8 |
| SMFJ48A | SMFJ48CA | MX | JX | 48 | 53.3 | 58.9 | 1.0 | 1.0 | 77.4 | 2.6 |
| SMFJ51A | SMFJ51CA | MZ | JZ | 51 | 56.7 | 62.7 | 1.0 | 1.0 | 82.4 | 2.4 |
| SMFJ54A | SMFJ54CA | NE | XE | 54 | 60.0 | 66.3 | 1.0 | 1.0 | 87.1 | 2.3 |
| SMFJ58A | SMFJ58CA | NG | XG | 58 | 64.4 | 71.2 | 1.0 | 1.0 | 93.6 | 2.1 |
| SMFJ60A | SMFJ60CA | NK | XK | 60 | 66.7 | 73.7 | 1.0 | 1.0 | 96.8 | 1.8 |
| SMFJ64A | SMFJ64CA | NM | XM | 64 | 71.1 | 78.6 | 1.0 | 1.0 | 103 | 1.7 |
| SMFJ70A | SMFJ70CA | NP | XP | 70 | 77.8 | 86.0 | 1.0 | 1.0 | 113 | 1.5 |
| SMFJ75A | SMFJ75CA | NR | XR | 75 | 83.3 | 92.1 | 1.0 | 1.0 | 121 | 1.4 |
| SMFJ78A | SMFJ78CA | NT | XT | 78 | 86.7 | 95.8 | 1.0 | 1.0 | 126 | 1.4 |
| SMFJ85A | SMFJ85CA | NV | XB | 85 | 94.4 | 104 | 1.0 | 1.0 | 137 | 1.3 |
| SMFJ90A | SMFJ90CA | NX | XX | 90 | 100 | 111 | 1.0 | 1.0 | 146 | 1.2 |
| SMFJ100A | SMFJ100CA | NZ | XZ | 100 | 111 | 123 | 1.0 | 1.0 | 162 | 1.1 |
| SMFJ110A | SMFJ110CA | PE | TE | 110 | 122 | 135 | 1.0 | 1.0 | 177 | 1.0 |
| SMFJ120A | SMFJ120CA | PG | TG | 120 | 133 | 147 | 1.0 | 1.0 | 193 | 0.9 |
| SMFJ130A | SMFJ130CA | PK | TK | 130 | 144 | 159 | 1.0 | 1.0 | 209 | 0.8 |
| SMFJ150A | SMFJ150CA | PM | TM | 150 | 167 | 185 | 1.0 | 1.0 | 243 | 0.7 |
| SMFJ160A | SMFJ160CA | PP | TP | 160 | 178 | 197 | 1.0 | 1.0 | 259 | 0.7 |
| SMFJ170A | SMFJ170CA | PR | TR | 170 | 189 | 209 | 1.0 | 1.0 | 275 | 0.6 |

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