

SURFACE MOUNT HIGH EFFICIENCY RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere

Features

- Glass passivated device
- Ideal for surface mouted applications
- Low reverse leakage
- Metallurgically bonded construction
- High temperature soldering guaranteed:
260°C/10 seconds,0.375”(9.5mm) lead length,
5lbs.(2.3kg)tension

Mechanical Data

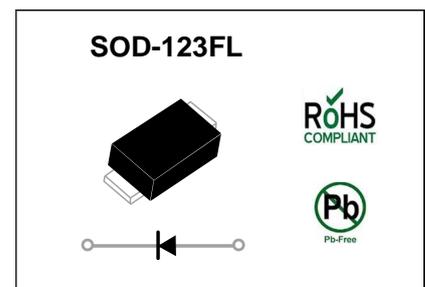
- Case:SOD-123FL molded plastic body over passivated chip
- Terminals: Plated axial leads,solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.0007 ounce, 0.02 grams

Specification

Maximum Rating And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

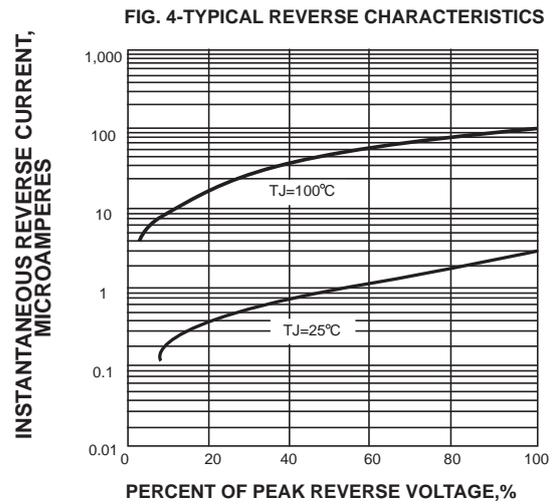
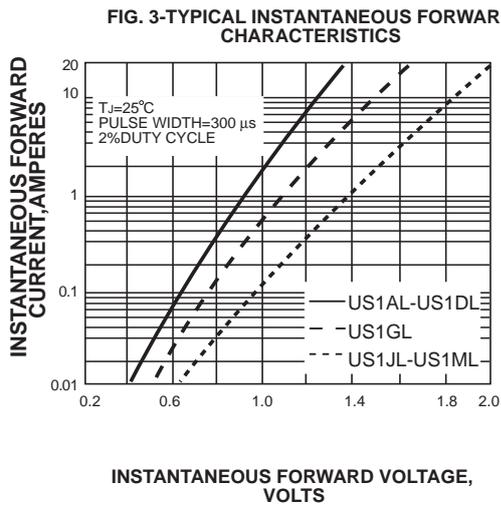
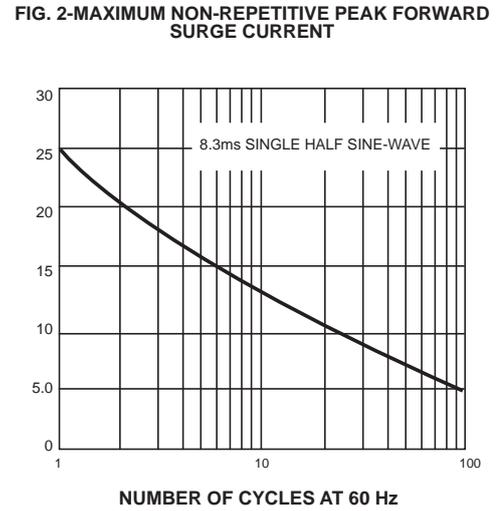
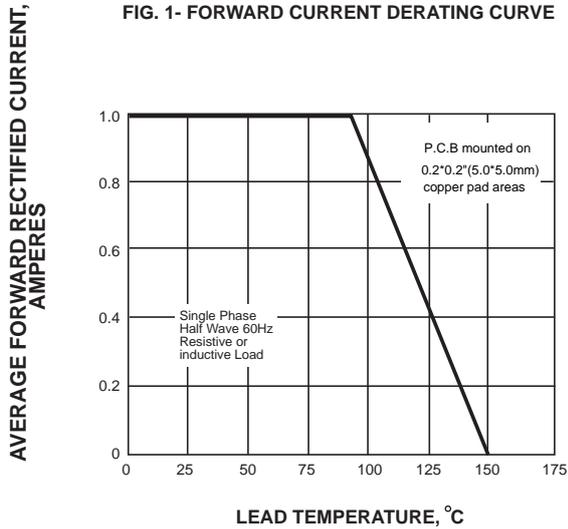
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.



| | SYMBOLS | US1AL UA | US1BL UB | US1DL UD | US1GL UG | US1JL UJ | US1KL UK | US1ML UM | UNITS |
|---|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum average forward rectified current | I <sub(av)< sub=""></sub(av)<> | 1.0 | | | | | | | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load | I _{FSM} | 25.0 | | | | | | | A |
| Maximum instantaneous forward voltage at1.0A | V _F | 1.0 | | 1.4 | 1.7 | | | V | |
| Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C | I _R | 5.0 | | | | 100.0 | | | μA |
| Maximum reverse recovery time (NOTE 1) | t _{rr} | 50 | | | | 75 | | | ns |
| Typical thermal resistance (NOTE 2) | R _{θJA} | 95 | | | | | | | °C/W |
| Operating junction and storage temperature range | T _J ,T _{STG} | -55 to +150 | | | | | | | °C |

Note: 1.Measured with IF=0.5A, IR=1A, Irr=0.25A.
2.P.C.B. mounted with 0.2x0.2”(5.0x5.0mm) copper pad areas

Ratings and characteristic curves US1AL thru US1ML



Marking and packing illustration

1、Marking



| SYMBOL | Explanation |
|--------|--------------|
| A | Product Name |

2、Packaging



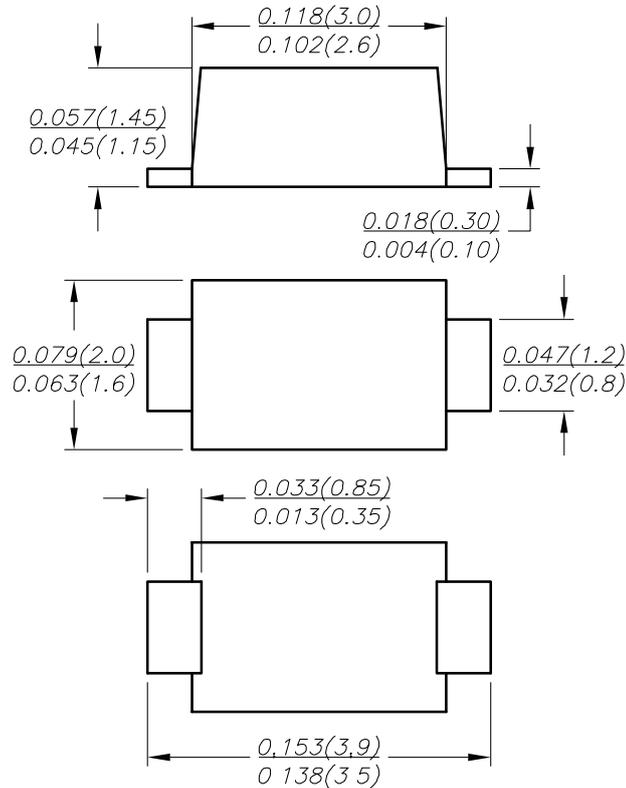
| SPECIFICATIONS mm(inch) | | PACKAGE | SPECIFICATIONS mm(inch) | | PACKAGE |
|----------------------------|------------|-----------------|----------------------------|------------|----------------|
| ITEM | SYM BOL | SOD-123FL | ITEM | SYM BOL | SOD-123FL |
| Carrier width | A | 2.1(0.083)Max | Carrier depth | K | 1.60(0.063)Typ |
| Carrier length | B | 4.0(0.157)Max | Punch hole pitch | P | 4.00(0.157)Typ |
| Sprocket hole | d | ø1.55(0.061)Typ | Sprocket hole pitch | P0 | 4.00(0.157)Typ |
| Reel outer diameter | D | 177.8(7)Typ | Embossment center | P1 | 2.00(0.079)Typ |
| Reel inner diameter | D1 | 50.0(1.969)Min | Overall tape thickness | T | 0.25(0.098)Typ |
| Feed hole diameter | D2 | 13.0(0.512)Typ | Tape width | W | 8.15(0.321)Typ |
| Sprocket hole position | J | 1.75(0.069)Typ | Reel width | W1 | 10.5(0.413)Min |
| Punch hole position | H | 3.50(0.138)Typ | | | |

3、Ordering Information

| Part Number | Compliance | Case | Packaging |
|-------------|------------|-----------|------------------|
| SSXX | Standard | SOD-123FL | 3000/Tape & Reel |

Dimension

SOD-123FL



Dimensions in inches and (millimeters)

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