



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, CA 90638
 Phone: (562) 404-4474 * Fax: (562) 404-1773
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SUM20UF & UFSMS thru SUM50UF & UFSMS

**0.4 AMP
 2000-5000 VOLTS
 60 nsec
 HIGH VOLTAGE
 ULTRA FAST RECTIFIER**

Designer's Data Sheet

Part Number / Ordering Information^{1/}

SUM _ UF _ _

L Screening^{2/} _ = Not Screened
 TX = TX Level
 TXV = TXV Level
 S = S Level

L Package
 _ = Axial
 SMS = Surface Mount Square Tab

L Recovery Time
 UF = Ultra Fast

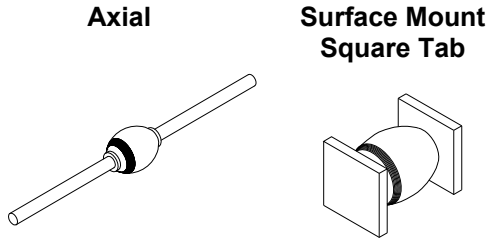
L Voltage
 20 = 2000 V
 25 = 2500 V
 30 = 3000 V
 35 = 3500 V
 40 = 4000 V
 50 = 5000 V

- FEATURES:**
- Fast Recovery: 60 nsec Maximum
 - PIV to 5000 Volts
 - Hermetically Sealed Axial and Surface Mount Package
 - Void-Free Construction
 - Metallurgically Bonded
 - 175°C Maximum Operating Temperature
 - TX, TXV, and Space Level Screening Available^{2/}

ELECTRICAL CHARACTERISTICS

| Part Number | Peak Inverse Voltage | Average Rectifier Current | | Maximum Reverse Current | | Maximum Forward Voltage | Maximum Surge Current (1 Cycle) | Maximum Reverse Recovery Time | Maximum Junction Capacitance | Typical Thermal Impedance |
|-------------|----------------------|---------------------------|-------|-------------------------|-------|-------------------------|---------------------------------|-------------------------------|------------------------------|----------------------------------|
| Symbol | PIV | I ₀ | | I _R | | V _F | I _{FSM} | t _{RR} | C _J | θ _{JL} /θ _{JE} |
| Units | Volts | mA | | µA | | Volts | Amps | nsec | pF | °C/W |
| Conditions | | 25°C | 100°C | 25°C | 100°C | 25°C | 25°C | 25°C | VR = 100V fT = 1MHZ | L = 3/8" |
| SUM20UF | 2000 | 400 | 250 | 1.0 | 25 | 10 | 25 | 60 | 10 | 16 |
| SUM25UF | 2500 | 400 | 250 | 1.0 | 25 | 10 | 25 | 60 | 10 | 16 |
| SUM30UF | 3000 | 400 | 250 | 1.0 | 25 | 13 | 25 | 60 | 10 | 16 |
| SUM35UF | 3500 | 400 | 250 | 1.0 | 25 | 13 | 25 | 60 | 10 | 16 |
| SUM40UF | 4000 | 400 | 250 | 1.0 | 25 | 13 | 25 | 60 | 10 | 16 |
| SUM50UF | 5000 | 400 | 250 | 1.0 | 25 | 13 | 25 | 60 | 10 | 16 |

1/ For ordering information, price, and availability – contact factory.
 2/ Screening based on MIL-PRF-19500. Screening flows available on request.
 3/ Operating and testing over 10,000 V/inch may require encapsulation or immersion in a suitable dielectric material.
 4/ Max. forward voltage measured with instantaneous forward pulse of 300µsec minimum.
 5/ Max. Lead/End Tab temp. for soldering is 250°C, 3/8" from case for 5 sec maximum.
 6/ Operating and storage temperature: -65°C to +175°C.
 7/ Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, IRR=25mA, TA=25°C.



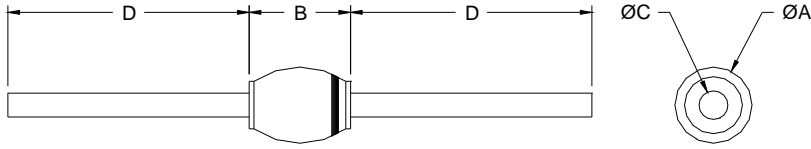


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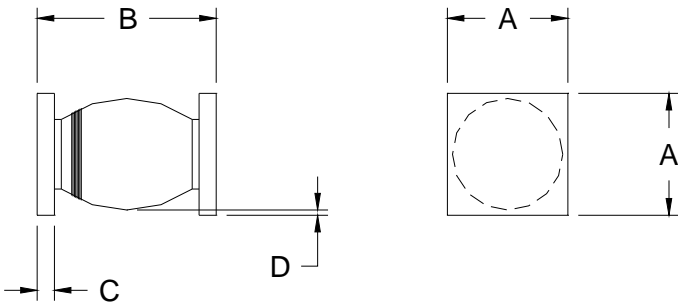
**SUM20UF & UFSMS
thru
SUM50UF & UFSMS**

PACKAGE OUTLINE: Axial



| DIMENSIONS | | |
|------------|--------|--------|
| DIM | MIN | MAX |
| A | 0.065" | 0.165" |
| B | --- | 0.300" |
| C | 0.047" | 0.053" |
| D | 1.00" | — |

PACKAGE OUTLINE: Surface Mount Square Tab



| DIMENSIONS | | |
|------------|--------|--------|
| DIM | MIN | MAX |
| A | 0.170" | 0.180" |
| B | 0.285" | 0.325" |
| C | 0.020" | 0.030" |
| D | 0.002" | — |

Notes:
Consult manufacturing for operating curves.