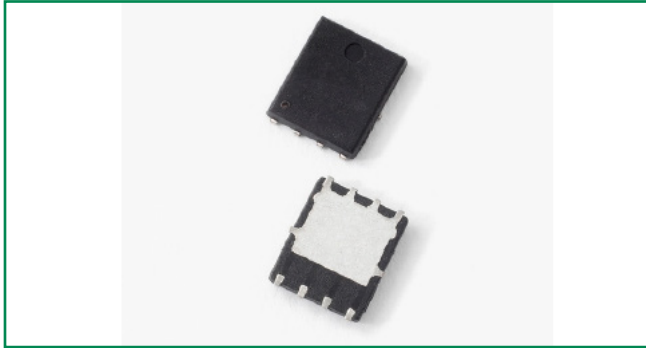
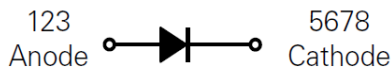




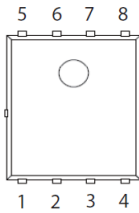
## DST2060DJF



### Schematic



### Pin out



| Pin        | Function |
|------------|----------|
| 1, 2, 3    | Anode    |
| 4          | Open     |
| 5, 6, 7, 8 | Cathode  |

### Description

Littelfuse DST series Ultra Low  $V_F$  Schottky Barrier Rectifier is designed to meet the general requirements of commercial and industry applications by providing high temperature, low leakage and lower  $V_F$  products.

It is suitable for high frequency switching mode power supply, free-wheeling diodes and polarity protection diodes.

### Features

- Ultra low forward voltage drop
- High frequency operation
- High junction temperature capability
- Guard ring for enhanced ruggedness and long term reliability
- Single die in PDFNWB5x6-8L package

### Applications

- Switching mode power supply
- DC/DC converters
- Free-Wheeling diodes
- Polarity Protection Diodes

### Maximum Ratings

| Parameters                                              | Symbol      | Test Conditions                                                 | Max | Unit |
|---------------------------------------------------------|-------------|-----------------------------------------------------------------|-----|------|
| Peak Inverse Voltage                                    | $V_{RWM}$   | -                                                               | 60  | V    |
| Average Forward Current (per device)                    | $I_{F(AV)}$ | 50% duty cycle @ $T_C = 80^\circ\text{C}$ rectangular wave form | 20  | A    |
| Peak One Cycle Non-Repetitive Surge Current (per diode) | $I_{FSM}$   | 8.3 ms, half Sine pulse                                         | 150 | A    |

### Electrical Characteristics

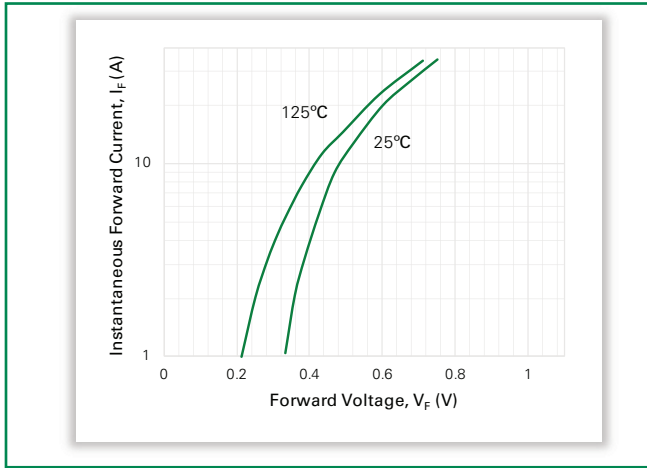
| Parameters                        | Symbol   | Test Conditions                                      | Max  | Unit |
|-----------------------------------|----------|------------------------------------------------------|------|------|
| Forward Voltage Drop (per diode)* | $V_{F1}$ | @20A, Pulse, $T_J = 25^\circ\text{C}$                | 0.75 | V    |
|                                   | $V_{F2}$ | @20A, Pulse, $T_J = 125^\circ\text{C}$               | 0.70 |      |
| Reverse Current (per diode)*      | $I_{R1}$ | @ $V_R = \text{rated } V_R, T_J = 25^\circ\text{C}$  | 1    | mA   |
|                                   | $I_{R2}$ | @ $V_R = \text{rated } V_R, T_J = 125^\circ\text{C}$ | 40   |      |

\* Pulse Width < 300 $\mu\text{s}$ , Duty Cycle < 2%

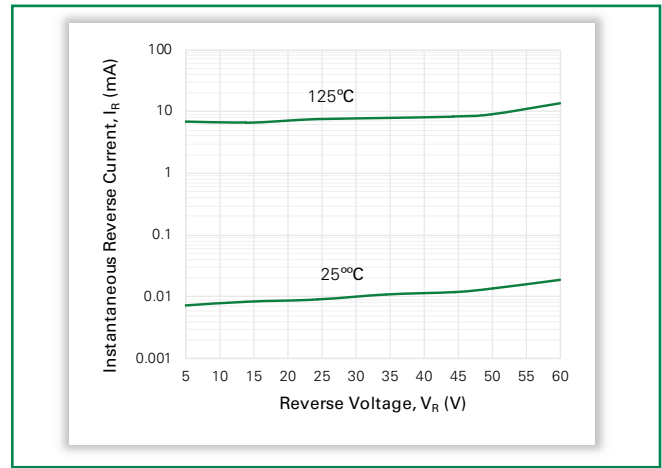
### Thermal-Mechanical Specifications

| Parameters                                              | Symbol     | Test Conditions | Max         | Unit               |
|---------------------------------------------------------|------------|-----------------|-------------|--------------------|
| Junction Temperature                                    | $T_J$      |                 | -55 to +150 | $^\circ\text{C}$   |
| Storage Temperature                                     | $T_{stg}$  |                 | -55 to +150 | $^\circ\text{C}$   |
| Typical Thermal Resistance Junction to Case (per diode) | $R_{thJC}$ | DC operation    | 2.6         | $^\circ\text{C/W}$ |
| Approximate Weight                                      | wt         |                 | 0.095       | g                  |
| Case Style                                              |            | PDFNWB5x6-8L    |             |                    |

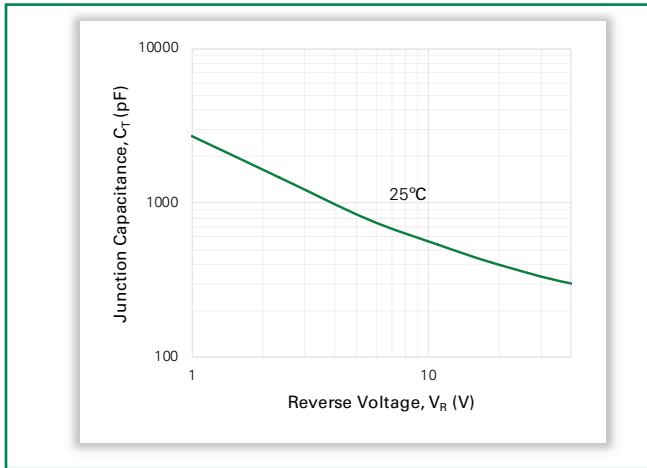
**Figure 1: Typical Forward Characteristics**



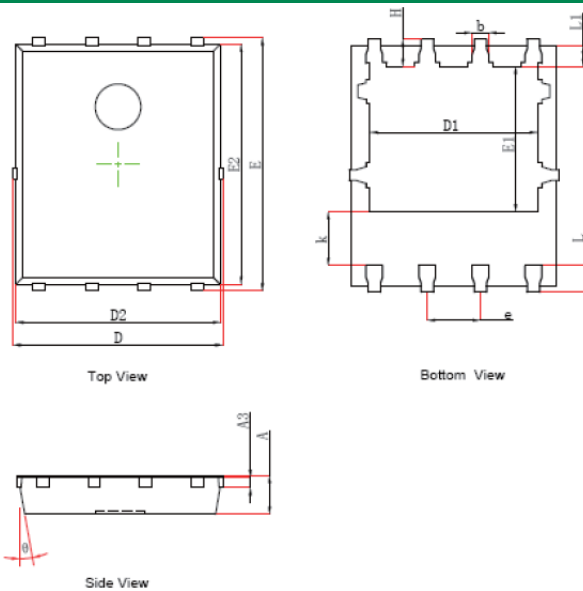
**Figure 2: Typical Reverse Characteristics**



**Figure 3: Typical Junction Capacitance**

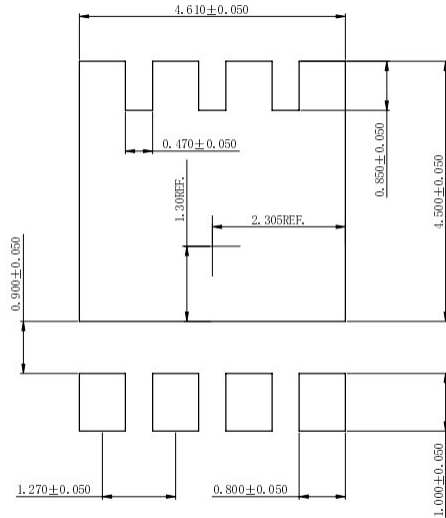


**Dimensions-PDFNWB5x6-8L**



| Symbol   | Millimeters |       |
|----------|-------------|-------|
|          | Min         | Max   |
| A        | 0.900       | 1.000 |
| A3       | 0.254 REF   |       |
| D        | 4.944       | 5.096 |
| E        | 5.974       | 6.126 |
| D1       | 3.910       | 4.110 |
| E1       | 3.375       | 3.575 |
| D2       | 4.824       | 4.976 |
| E2       | 5.674       | 5.826 |
| k        | 1.190       | 1.390 |
| b        | 0.350       | 0.450 |
| e        | 1.27 TYP    |       |
| L        | 0.559       | 0.711 |
| L1       | 0.424       | 0.576 |
| H        | 0.574       | 0.726 |
| $\theta$ | 10°         | 12°   |

**Soldering Footprint**



Dimensions: Millimeters

**Part Numbering and Marking System**

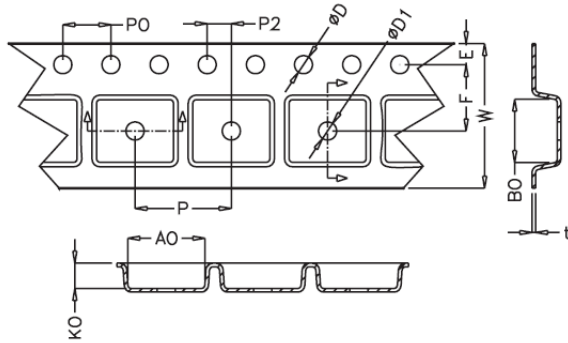


- DST = Device Type
- 20 = Forward Current (20A)
- 60 = Reverse Voltage (60V)
- DJF = Package Type
- LF = Littelfuse
- YY = Year
- WW = Week
- L = Lot Number

**Packing Options**

| Part Number | Marking    | Packing Mode   | M.O.Q |
|-------------|------------|----------------|-------|
| DST2060DJF  | DST2060DJF | 3000pcs / Reel | 3000  |

**Carrier Tape & Reel Specification**



| Symbol | Millimeters |       |
|--------|-------------|-------|
|        | Min         | Max   |
| A0     | 6.20        | 6.40  |
| B0     | 5.20        | 5.40  |
| D      | 1.50        | 1.60  |
| D1     | 1.5         | 1.75  |
| E      | 1.65        | 1.85  |
| F      | 5.45        | 5.55  |
| K0     | 1.00        | 1.20  |
| P      | 7.90        | 8.10  |
| P0     | 3.90        | 4.10  |
| P2     | 1.95        | 2.05  |
| W      | 11.90       | 12.30 |
| t      | 0.23        | 0.27  |

## Looking for pricing, stock, or lifecycle information?

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 [Littelfuse Inc. Information](#)

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