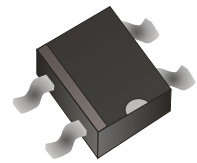


## DF005S-G Thru. DF10S-G

Reverse Voltage: 50 to 1000V

Forward Current: 1.0A

RoHS Device

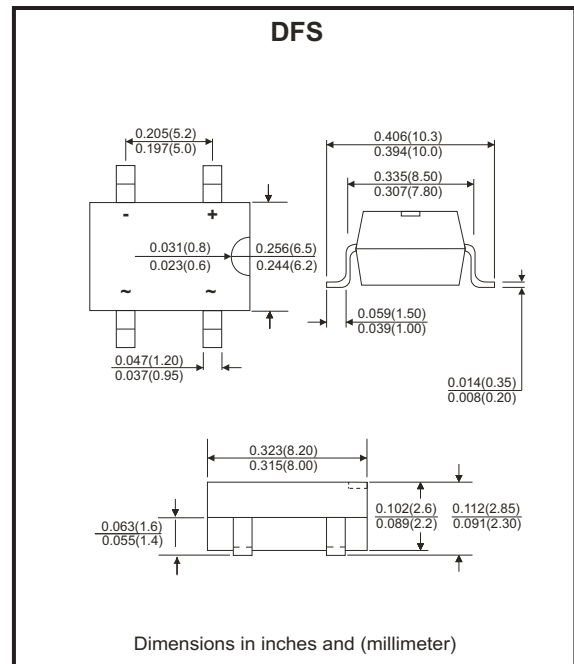


### Features

- Rating to 1000V PRV.
- Ideal for printed circuit board.
- Low forward voltage drop.
- High current capability.
- The plastic material has UL flammability classification 94V-0
- UL recognized file # E349301 

### Mechanical Data

- Polarity: As marked on Body.
- Weight: 0.38 grams.
- Mounting position: Any.



### Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%

| Parameter                                                                                                    | Symbol          | DF 005S-G   | DF 01S-G | DF 02S-G | DF 04S-G | DF 06S-G | DF 08S-G | DF 10S-G | Unit                 |
|--------------------------------------------------------------------------------------------------------------|-----------------|-------------|----------|----------|----------|----------|----------|----------|----------------------|
| Maximum Recurrent 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 @ $T_A=40^\circ\text{C}$                                           | $I_{(AV)}$      | 1.0         |          |          |          |          |          |          | A                    |
| Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)           | $I_{FSM}$       | 30          |          |          |          |          |          |          | A                    |
| Maximum Forward Voltage at 1.0A DC                                                                           | $V_F$           | 1.1         |          |          |          |          |          |          | V                    |
| Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$<br>At Rate DC Blocking Voltage @ $T_J=125^\circ\text{C}$ | $I_R$           | 10<br>500   |          |          |          |          |          |          | $\mu\text{A}$        |
| $I^2T$ Rating for Fusing ( $t < 8.3\text{ms}$ )                                                              | $I^2t$          | 3.735       |          |          |          |          |          |          | $\text{A}^2\text{s}$ |
| Typical Junction Capacitance Per Element (Note 1)                                                            | $C_J$           | 25          |          |          |          |          |          |          | pF                   |
| Typical Thermal Resistance (Note 2)                                                                          | $R_{\theta JA}$ | 40          |          |          |          |          |          |          | $^\circ\text{C/W}$   |
| Operating Temperature Range                                                                                  | $T_J$           | -55 to +150 |          |          |          |          |          |          | $^\circ\text{C}$     |
| Storage Temperature Range                                                                                    | $T_{STG}$       | -55 to +150 |          |          |          |          |          |          | $^\circ\text{C}$     |

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Thermal resistance from junction to ambient mounted on P.C.B with 0.5\*0.5"(13\*13mm) copper pads.

Company reserves the right to improve product design , functions and reliability without notice.

REV: G

## Rating and Characteristics Curves (DF005S-G Thru. DF10S-G)

Fig.1 - Forward Current Derating Curve

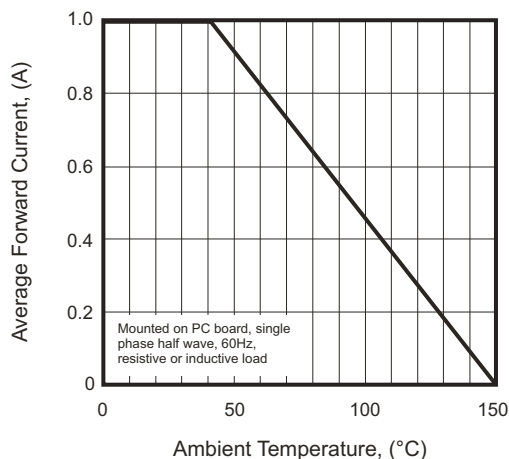


Fig.2 - Maximum Non-repetitive Surge Current

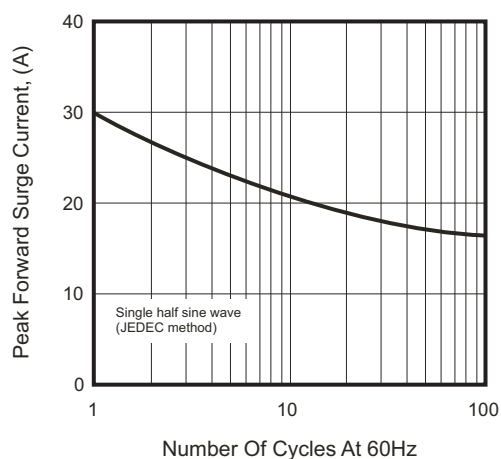


Fig.3 - Typical Junction Capacitance

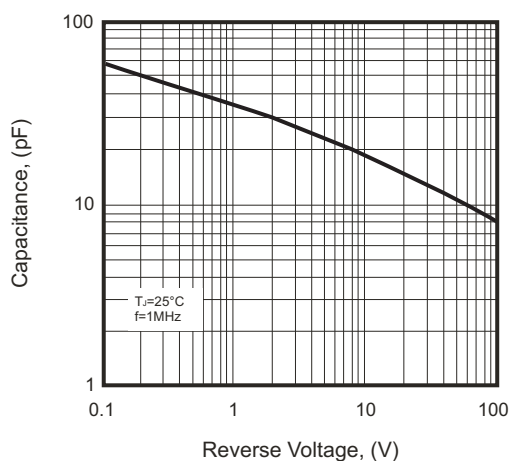


Fig.4 - Typical Forward Characteristics

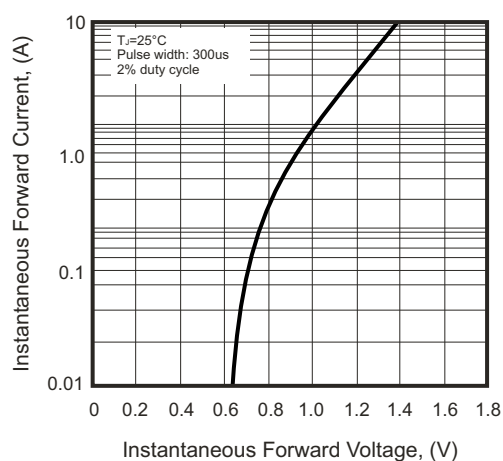
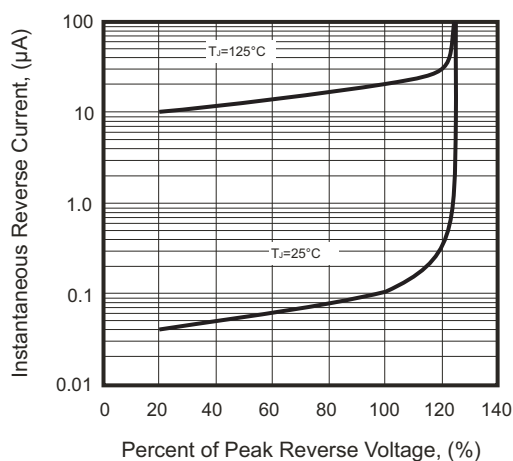
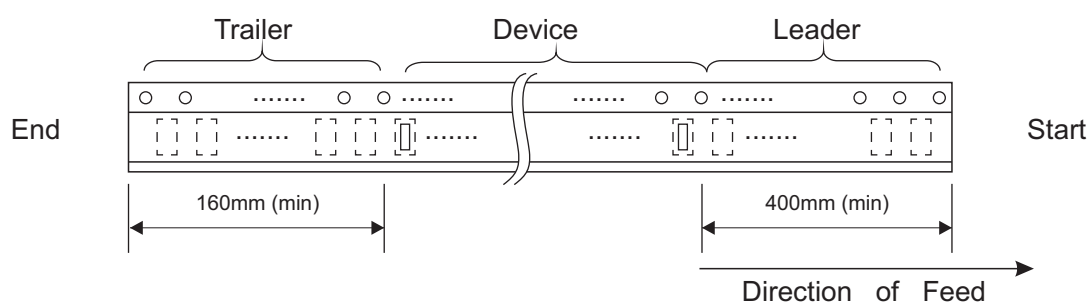
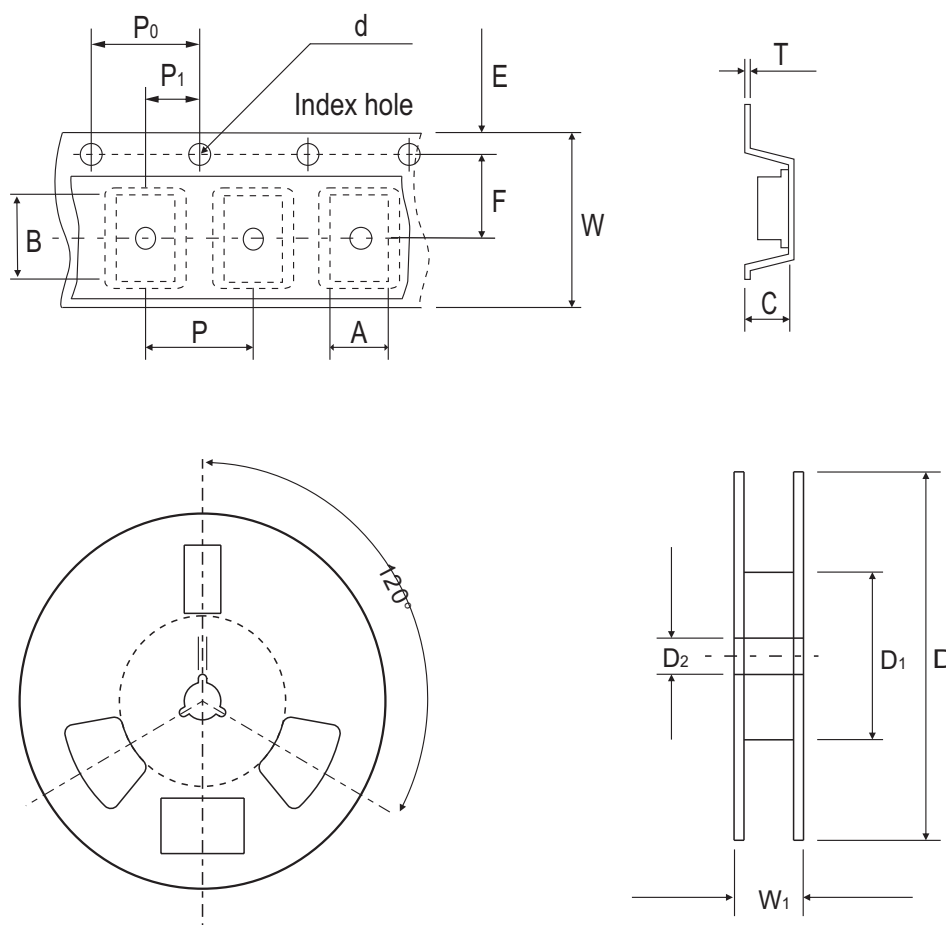


Fig.5 - Typical Reverse Characteristics



## Reel Taping Specification



| DFS | SYMBOL | A                 | B                 | C                 | d                 | D   | D1         | D2                |
|-----|--------|-------------------|-------------------|-------------------|-------------------|-----|------------|-------------------|
|     | (mm)   | $8.64 \pm 0.10$   | $10.41 \pm 0.10$  | $3.81 \pm 0.10$   | $1.55 \pm 0.05$   | 330 | 50.0 MIN.  | $13.00 \pm 0.20$  |
|     | (inch) | $0.340 \pm 0.004$ | $0.409 \pm 0.004$ | $0.150 \pm 0.004$ | $0.061 \pm 0.002$ | 13  | 1.969 MIN. | $0.512 \pm 0.008$ |

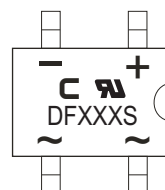
| DFS | SYMBOL | E                 | F                 | P                 | P0                | P1                | T     | W                 | W1          |
|-----|--------|-------------------|-------------------|-------------------|-------------------|-------------------|-------|-------------------|-------------|
|     | (mm)   | $1.75 \pm 0.10$   | $7.50 \pm 0.05$   | $12.00 \pm 0.10$  | $4.00 \pm 0.10$   | $2.00 \pm 0.10$   | 0.32  | $16.00 \pm 0.30$  | 16.00~18.40 |
|     | (inch) | $0.069 \pm 0.004$ | $0.295 \pm 0.002$ | $0.472 \pm 0.004$ | $0.157 \pm 0.004$ | $0.079 \pm 0.004$ | 0.013 | $0.630 \pm 0.012$ | 0.630~0.724 |

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REV: G

## Marking Code

| Part Number | Marking code | Packaging |
|-------------|--------------|-----------|
| DF005SP-G   | DF005S       | Tube      |
| DF01SP-G    | DF01S        | Tube      |
| DF02SP-G    | DF02S        | Tube      |
| DF04SP-G    | DF04S        | Tube      |
| DF06SP-G    | DF06S        | Tube      |
| DF08SP-G    | DF08S        | Tube      |
| DF10SP-G    | DF10S        | Tube      |
| DF005ST-G   | DF005S       | Reel      |
| DF01ST-G    | DF01S        | Reel      |
| DF02ST-G    | DF02S        | Reel      |
| DF04ST-G    | DF04S        | Reel      |
| DF06ST-G    | DF06S        | Reel      |
| DF08ST-G    | DF08S        | Reel      |
| DF10ST-G    | DF10S        | Reel      |



XX / XXX = Product type marking code  
C = Comchip Logo

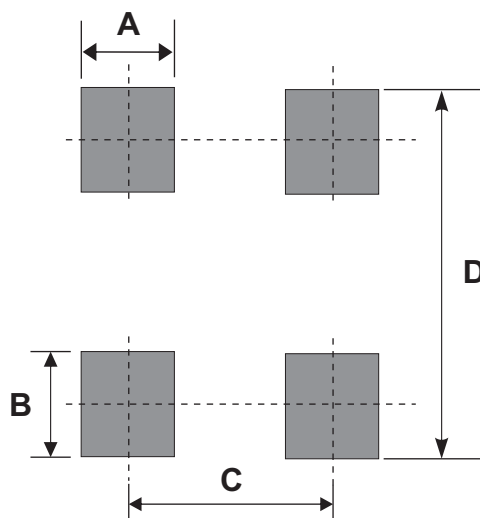
Note:

1) Suffix code after part number to specify packaging item .

| Packaging | Code |
|-----------|------|
| TUBE PACK | P    |
| REEL PACK | T    |

## Suggested PAD Layout

| SIZE | DFS       |           |
|------|-----------|-----------|
|      | (mm)      | (inch)    |
| A    | 1.20 Min  | 0.047 Min |
| B    | 1.52 Min  | 0.060 Min |
| C    | 5.21 Ref  | 0.205 Ref |
| D    | 10.26 Max | 0.404 Max |



## Standard Packaging

| Case Type | TUBE PACK       |                |
|-----------|-----------------|----------------|
|           | TUBE<br>( pcs ) | BOX<br>( pcs ) |
| DFS       | 50              | 5,000          |

| Case Type | REEL PACK       |                     |
|-----------|-----------------|---------------------|
|           | REEL<br>( pcs ) | Reel Size<br>(inch) |
| DFS       | 1,000           | 13                  |

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REV: G

## Данный компонент на территории Российской Федерации

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<http://moschip.ru/get-element>

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Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

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Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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