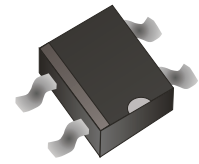


## DF2005S-G Thru. DF210S-G

Reverse Voltage: 50 to 1000V  
Forward Current: 2.0A  
RoHS Device

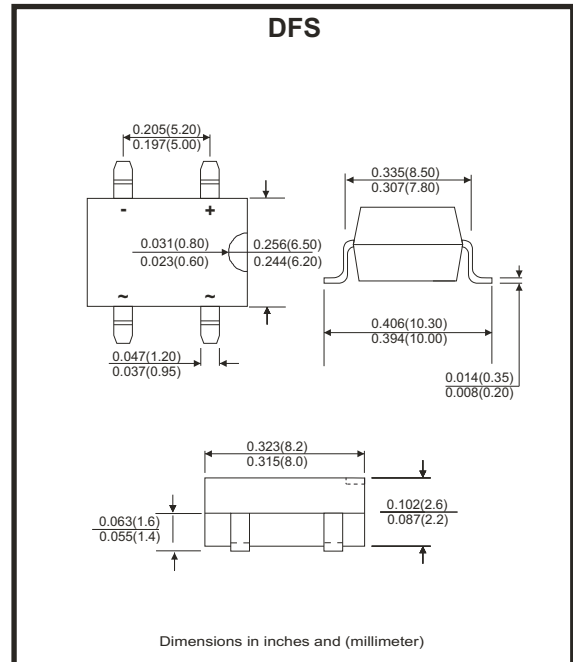


### Features

- 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

### Mechanical Data

- Polarit:As marked on Body
- Weight:0.02 ounces, 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 2005S-G	DF 201S-G	DF 202S-G	DF 204S-G	DF 206S-G	DF 208S-G	DF 210S-G	Unit
Maximum Reverse Peak Repetitive 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 @ $T_A=40^\circ\text{C}$	$I_{(AV)}$	2.0							A
Peak Forward Surge Current , 8.3ms Single Half Sine-Wave Super Imposed on Rated Load	$I_{FSM}$	60							A
$I^2 t$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2 t$	10.4							$\text{A}^2\text{s}$
Maximum Forward Voltage at 2.0A DC	$V_F$	1.1							V
Maximum DC Reverse Current @ $T_J = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_J = 125^\circ\text{C}$	$I_R$	10 500							$\mu\text{A}$
Typical Junction Capacitance Per Element (Note 1)	$C_J$	25							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	40							$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-55 ~ +150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 ~ +150							$^\circ\text{C}$

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC
2. Unit mounted on P.C.B with  $0.50'' \times 0.50''$  (13×13mm) copper pads.

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REV: E

## Rating and Characteristics Curves (DF2005S-G Thru. DF210S-G)

Fig.1 - Derating Curve For Output Rectified Current

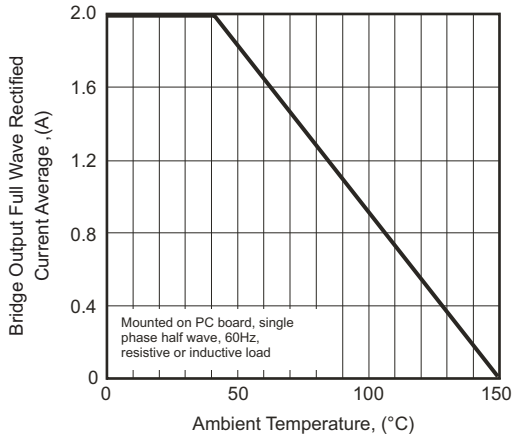


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current

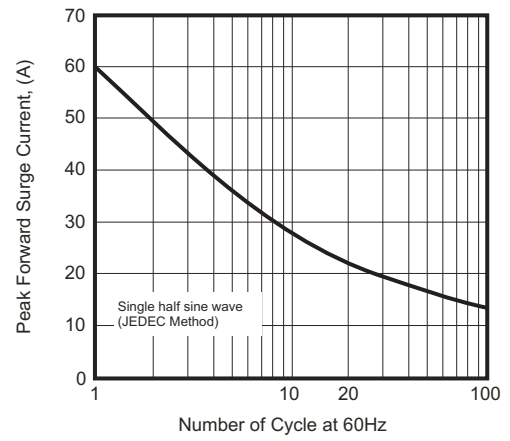


Fig.3 - Typical Junction Capacitance

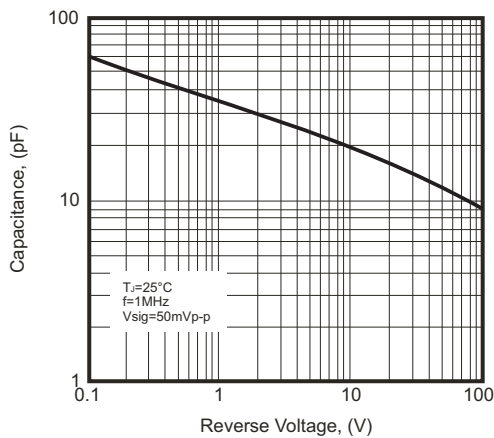


Fig.4 - Typical Forward Characteristics

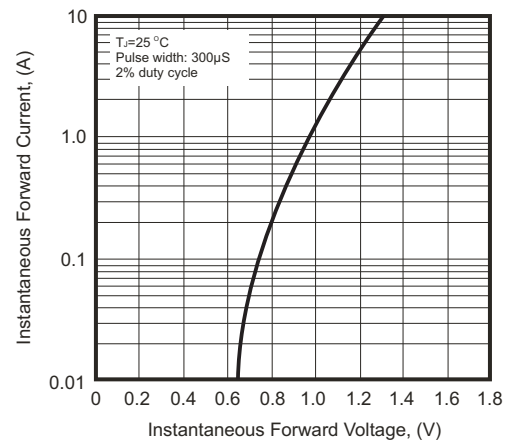
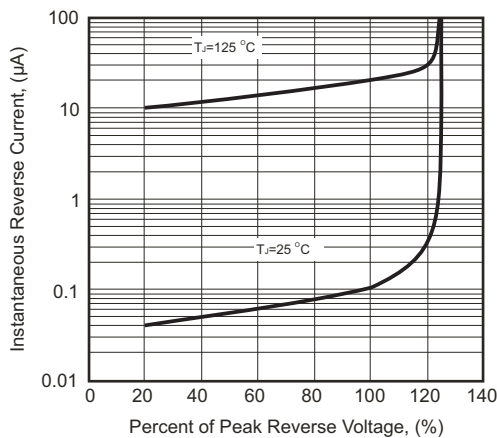


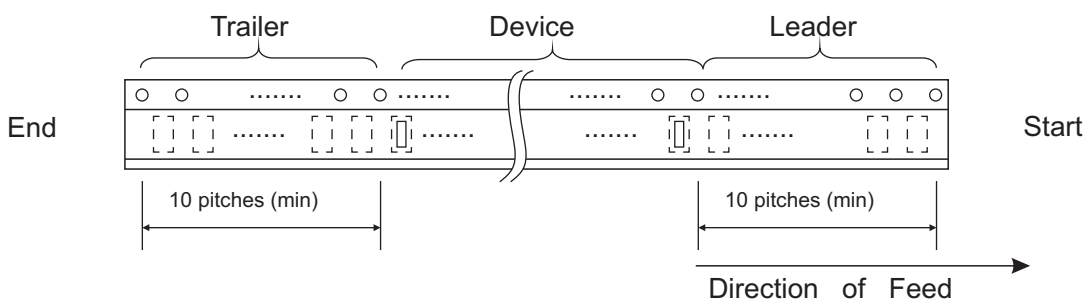
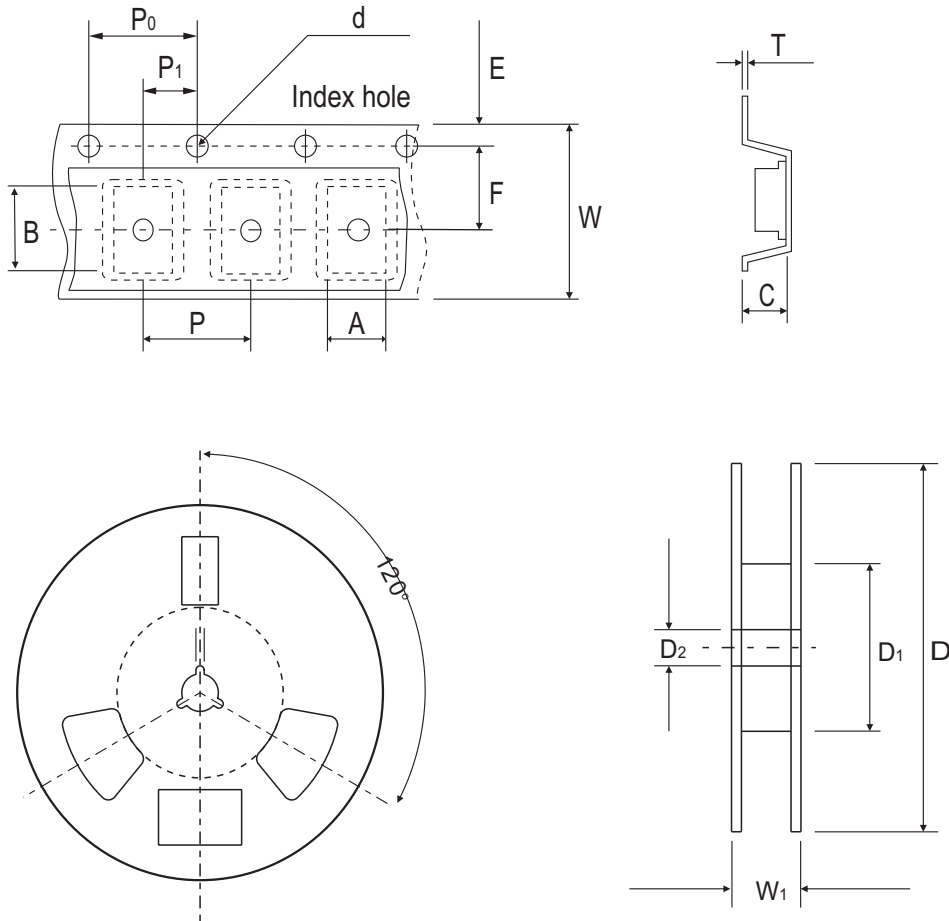
Fig.5 - Typical Reverse Characteristics



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## Reel Taping Specification



DFS	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	8.64 ± 0.10	10.41 ± 0.10	3.81 ± 0.10	1.55 ± 0.05	330	50.0 MIN.	13.00 ± 0.20
	(inch)	0.340 ± 0.004	0.409 ± 0.004	0.150 ± 0.004	0.061 ± 0.002	13	1.969 MIN.	0.512 ± 0.008

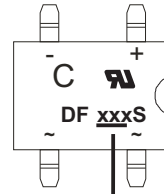
DFS	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	T	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	7.50 ± 0.05	12.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.32	16.00 ± 0.30	16.00~18.40
	(inch)	0.069 ± 0.004	0.295 ± 0.002	0.472 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.013	0.630 ± 0.012	0.630~0.724

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## Marking Code

Part Number	Marking code	Packaging
DF2005SP-G	DF2005S	Tube
DF201SP-G	DF201S	Tube
DF202SP-G	DF202S	Tube
DF204SP-G	DF204S	Tube
DF206SP-G	DF206S	Tube
DF208SP-G	DF208S	Tube
DF210SP-G	DF210S	Tube
DF2005ST-G	DF 2005S	Reel
DF201ST-G	DF201S	Reel
DF202ST-G	DF202S	Reel
DF204ST-G	DF204S	Reel
DF206ST-G	DF206S	Reel
DF208ST-G	DF208S	Reel
DF210ST-G	DF210S	Reel



**XXX / XXXX = Product type marking code**  
**C = Comchip Logo**

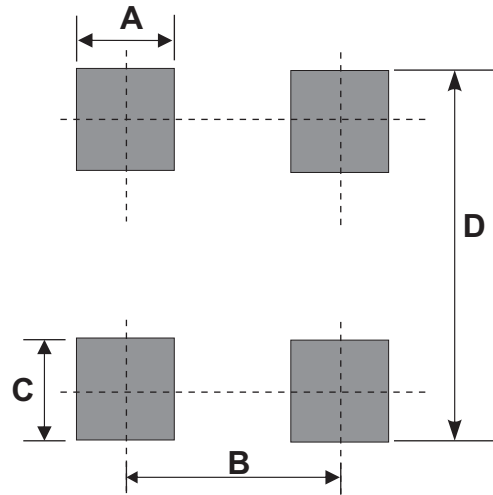
Note:

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)
<b>A</b>	1.20 Min	0.047 Min
<b>B</b>	5.21 REF	0.205 REF
<b>C</b>	1.52 Min	0.060 Min
<b>D</b>	10.26 Max	0.404 Max



## Standard Packaging

Case Type	TUBE PACK	
	TUBE ( pcs )	Carton ( pcs )
DFS	50	10,000

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
DFS	1,000	13

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REV: E