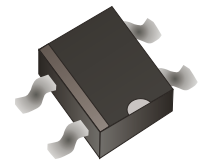


## DF2005S-G Thru. DF210S-G

Reverse Voltage: 50 to 1000V

Forward Current: 2.0A

RoHS Device

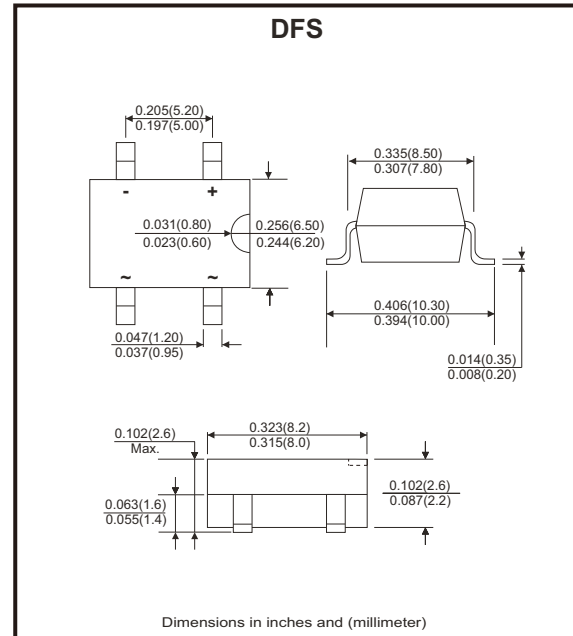


### Features

- 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
- UL recognized file # E217139

### Mechanical Data

- Polarity: As marked on Body.
- Weight: 0.02 ounces, 0.38 grams (approx.).
- 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 2015S-G	DF 2025S-G	DF 2045S-G	DF 2065S-G	DF 2085S-G	DF 210S-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 @ $T_A=40^\circ\text{C}$	$I_{(AV)}$	2.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	60							A
Maximum forward voltage at 2.0A DC	$V_F$	1.1							V
Maximum DC reverse current @ $T_J=25^\circ\text{C}$ at rate DC blocking voltage @ $T_J=125^\circ\text{C}$	$I_R$	10 500							$\mu\text{A}$
$I^2T$ rating for fusing ( $t < 8.3\text{ms}$ )	$I^2t$	10.4							$\text{A}^2\text{s}$
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.

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

Fig.1 - Derating Curve For Output Rectified Current

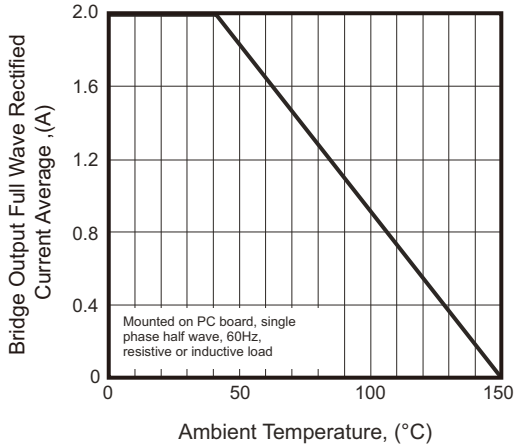


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current

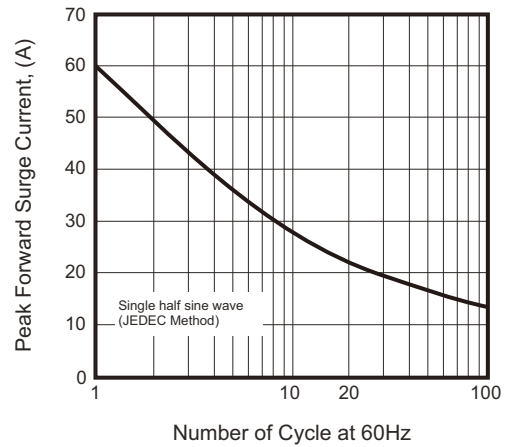


Fig.3 - Typical Junction Capacitance

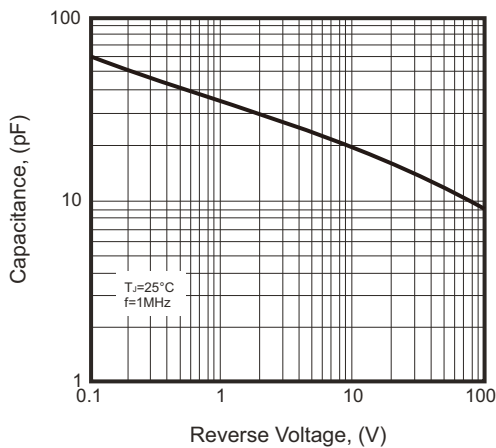


Fig.4 - Typical Forward Characteristics

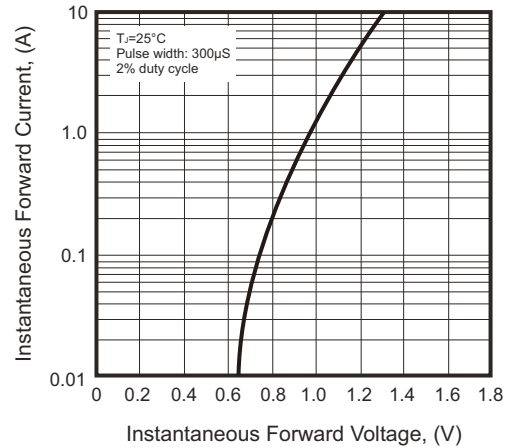
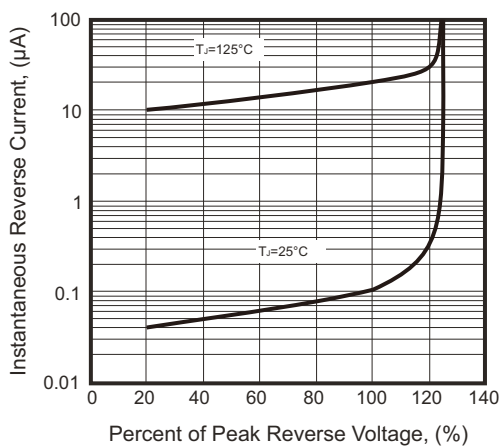
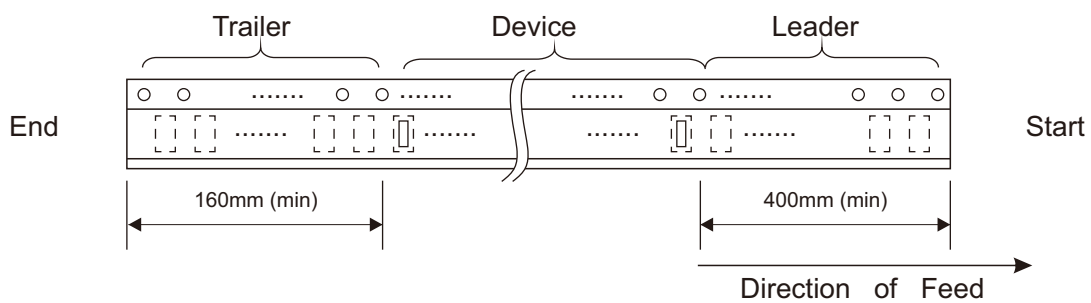
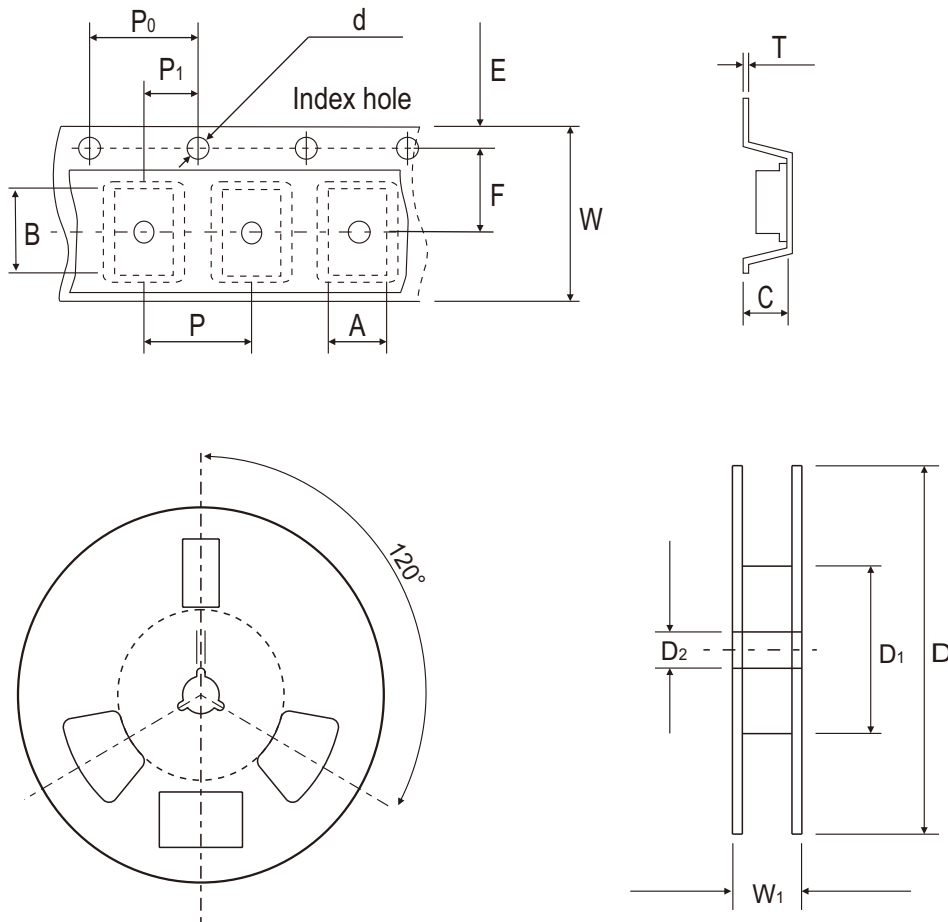


Fig.5 - Typical Reverse Characteristics



## Reel Taping Specification

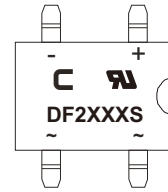


DFS	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	8.64 ± 0.10	10.41 ± 0.10	3.81 ± 0.10	1.55 ± 0.05	330	50.0 MIN.	13.00 ± 0.20
	(inch)	0.340 ± 0.004	0.409 ± 0.004	0.150 ± 0.004	0.061 ± 0.002	13	1.969 MIN.	0.512 ± 0.008

DFS	SYMBOL	E	F	P	P0	P1	T	W	W1
	(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

## Marking Code

Part Number	Marking code
DF2005S-G	DF2005S
DF201S-G	DF201S
DF202S-G	DF202S
DF204S-G	DF204S
DF206S-G	DF206S
DF208S-G	DF208S
DF210S-G	DF210S

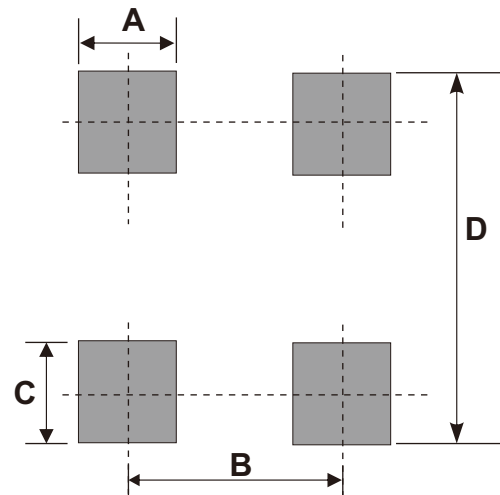


XX / XXX = Product type marking code

C = Comchip Logo

## Suggested P.C.B. PAD Layout

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



## Standard Packaging

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

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## [Comchip Technology:](#)

[DF201S-G](#) [DF202S-G](#) [DF204ST-G](#) [DF206ST-G](#) [DF208S-G](#) [DF210ST-G](#) [DF204S-G](#) [DF206S-G](#) [DF210S-G](#)  
[DF202ST-G](#) [DF201ST-G](#) [DF208ST-G](#)