

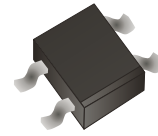
## DF2005S-HF Thru. DF210S-HF

Reverse Voltage: 50 to 1000V

Forward Current: 2.0A

RoHS Device

Halogen Free

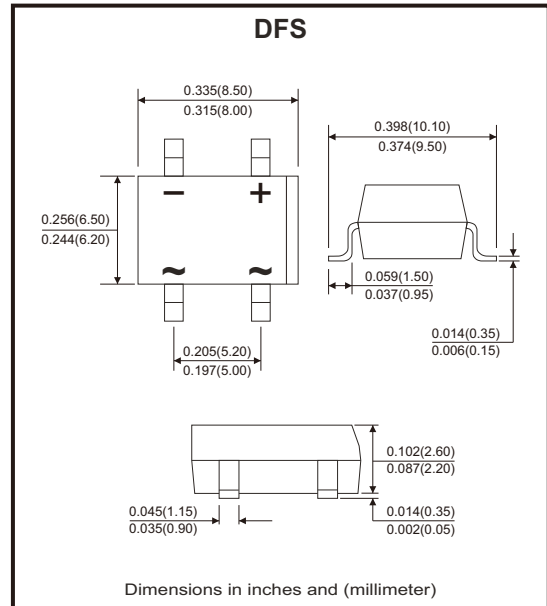


### Features

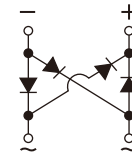
- The plastic package carries underwriters laboratory flammability classification 94V-0.
- Idea for printed circuit board.
- Glass passivated junction chip.
- Low reverse leakage.
- High forward surge current capability.
- High temperature soldering guaranteed 260°C/10 seconds at terminals.

### Mechanical Data

- Case: DFS, molded plastic body.
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026.
- Polarity: Polarity symbol marking on body.
- Mounting position: Any.



### Circuit Diagram



### 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	DF2005S -HF	DF201S -HF	DF202S -HF	DF204S -HF	DF206S -HF	DF208S -HF	DF210S -HF	Unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at TL=100°C	I(AV)	2							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	IFSM	60							A
Rating for fusing (t=8.3ms, Ta=25°C)	I <sup>2</sup> t	14.9							A <sup>2</sup> s
Maximum instantaneous forward voltage at 2A	VF	1							V
Maximum DC reverse current at rated DC blocking voltage TA=25°C TA=125°C	IR	2 200							μA
Typical junction capacitance (Note 1)	CJ	25							pF
Typical thermal resistance	RθJA	67							°C/W
Operating junction and storage temperature range	TJ, TSTG	-55 to +150							°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

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

Fig.1 - Derating Curve Output Rectified Current

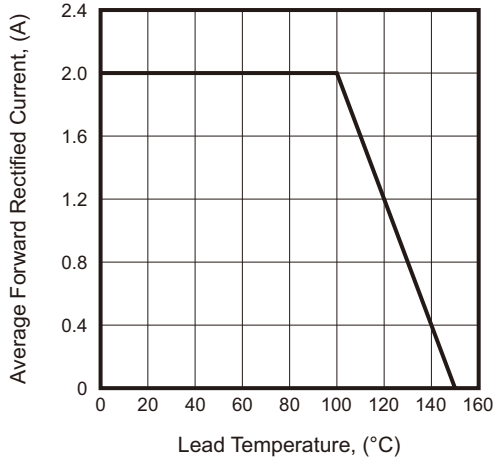


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current Perleg

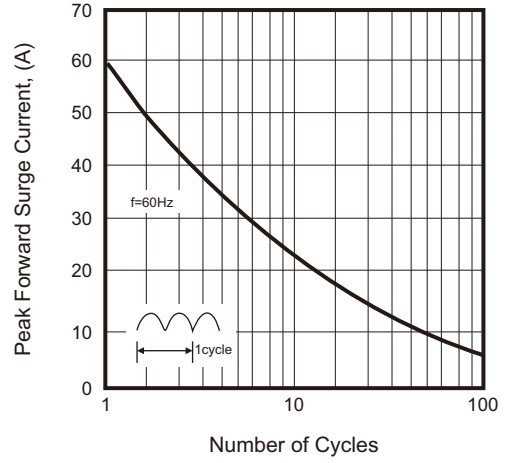


Fig.3 - Typical Forward Voltage Characteristics

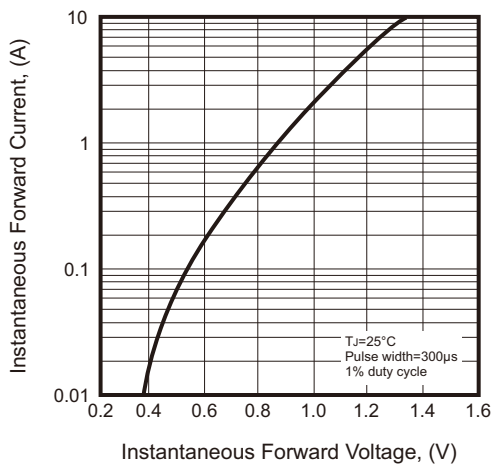
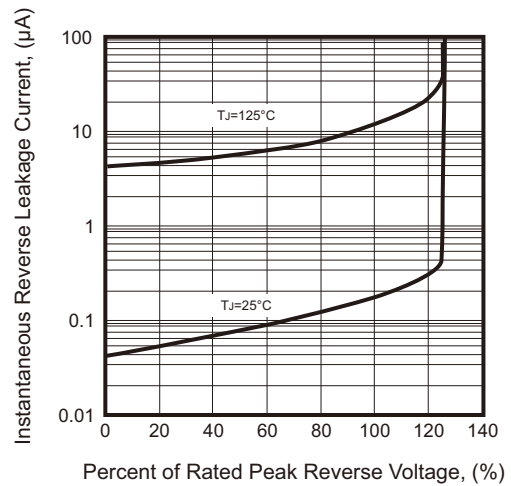
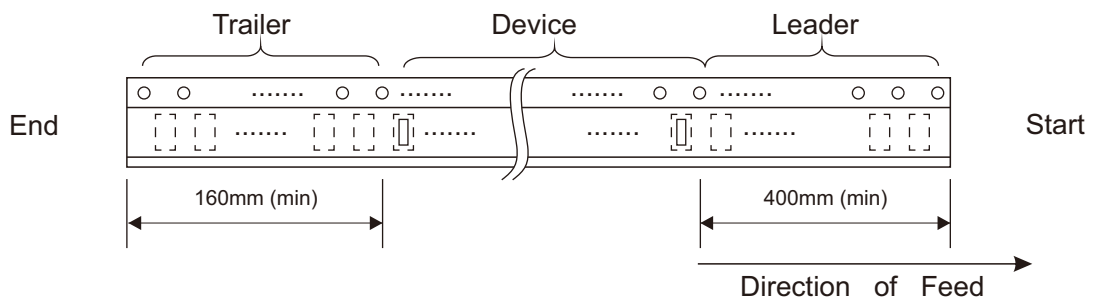
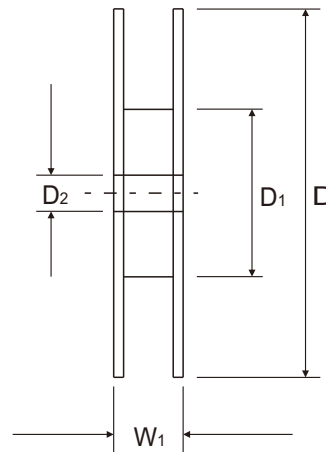
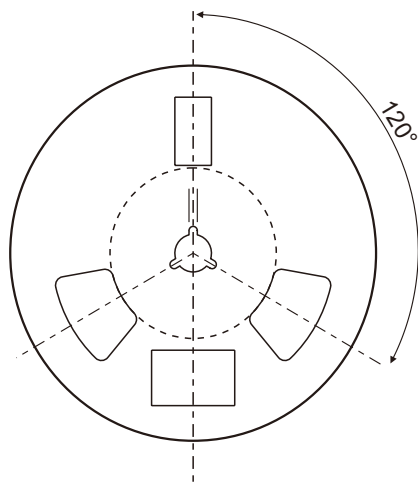
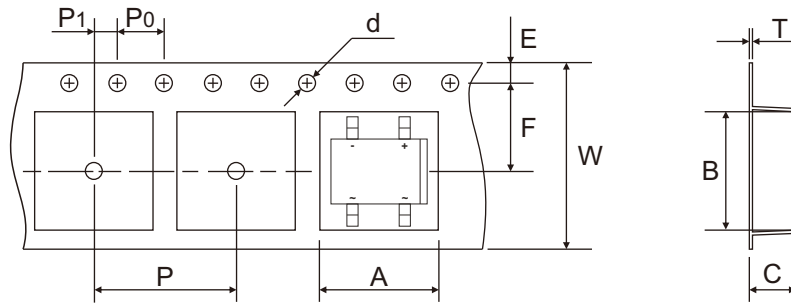


Fig.4 - Typical Reverse Leakage Characteristics



## Reel Taping Specification

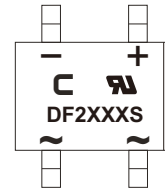


DFS	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	8.64 ± 0.10	10.40 ± 0.10	3.30 ± 0.10	1.55 ± 0.10	329.80 ± 1.00	99.70 ± 1.00	13.10 ± 0.10
	(inch)	0.340 ± 0.004	0.409 ± 0.004	0.130 ± 0.004	0.061 ± 0.004	12.984 ± 0.039	3.925 ± 0.039	0.516 ± 0.004

DFS	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	7.50 ± 0.10	12.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.30 ± 0.10	16.00 ± 0.10	12.80 ± 1.00
	(inch)	0.069 ± 0.004	0.295 ± 0.004	0.472 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.012 ± 0.004	0.630 ± 0.004	0.504 ± 0.039

## Marking Code

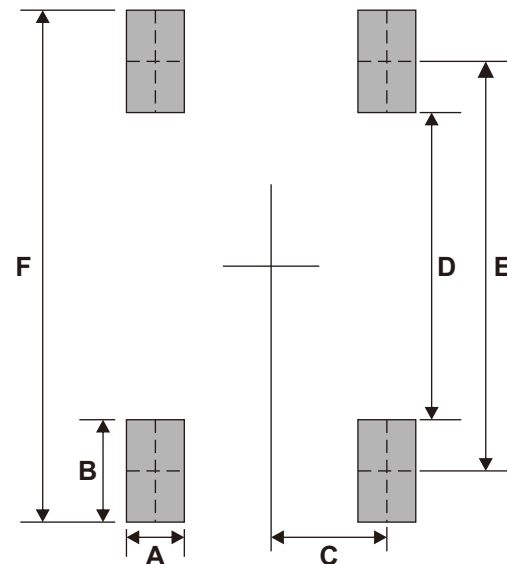
Part Number	Marking code
DF2005S-HF	DF2005S
DF201S-HF	DF201S
DF202S-HF	DF202S
DF204S-HF	DF204S
DF206S-HF	DF206S
DF208S-HF	DF208S
DF210S-HF	DF210S



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

## Suggested P.C.B. PAD Layout

SIZE	DFS	
	(mm)	(inch)
A	1.30	0.051
B	2.30	0.091
C	2.60	0.102
D	6.90	0.272
E	9.20	0.362
F	11.50	0.453



## Standard Packaging

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